MB990

ATX Motherboard

6th Generation Intel® Core™ i7/i5/i3 and Pentium®/Celeron®
ATX Motherboard w/ Intel® Q170 PCH

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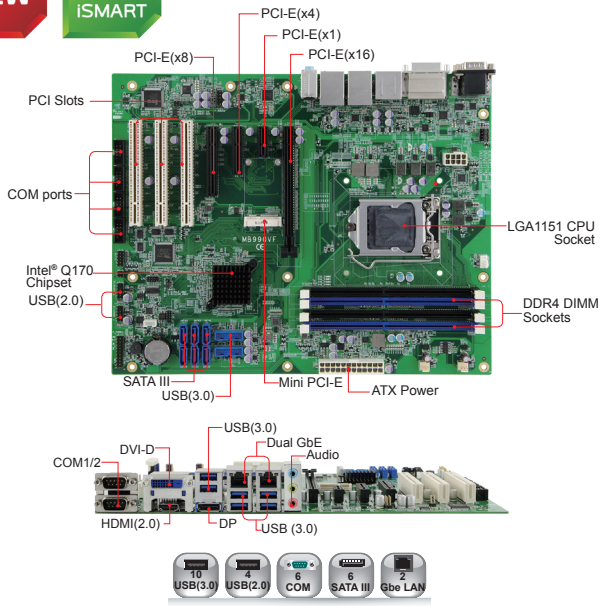


Features

- 6th Generation Intel® Core™ i7/i5/i3/ Pentium® / Celeron® QC/DC processors, up to 4GHz
- 4x DDR4 DIMM, Max. 64GB, ECC compatible
- Intel® processor integrated graphics device 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

System

CPU	LGA1151 for 6th Generation Intel® Core™ i7 / i5 / i3 / Pentium® / Celeron® QC/ DC processors, up to 4GHz
System Memory	4x DDR4 DIMM, Max. 64GB (Supports ECC by CPU SKUs)
System Chipset	Intel® Q170 / H170 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

Graphics

VGA Controller	6th Generation 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 series: Intel® I219LM Gigabit LAN PHY MB990EF series: Intel® I219V Gigabit LAN PHY Intel® I211AT PCI-E Gigabit LAN (as 2nd LAN)
Connector	RJ-45 on board

Multi I/O

I/O Chipset	Fintek F81866AD-I 5x RS232, 1x RS232/422/485 (jumperless selection), 6x SATAIII
USB	6 ports on board, 4 ports via pin-header (USB 3.0) 4 ports via pin-header (USB 2.0)
Audio	Intel® Q170 PCH built-in HD audio + Realtek ALC892 codec
Others	Digital I/O (4-in/4-out), EuP/ErP compliance, RAID, TPM(1.2), iAMT(11.0), iSMART

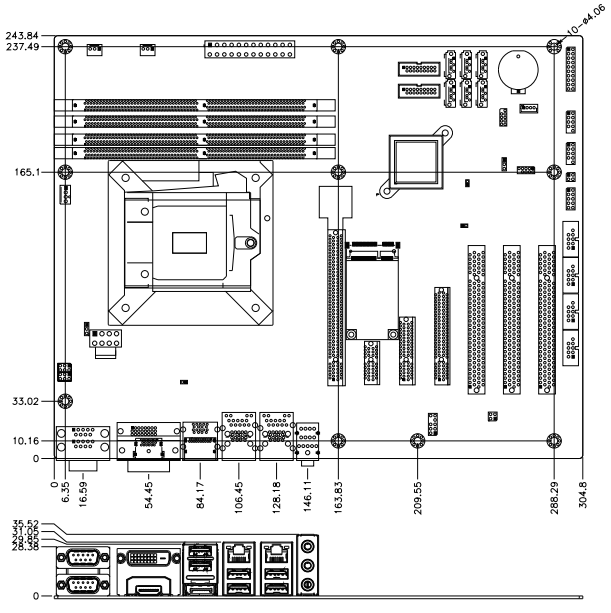
Mechanical and Environmental

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	LGA1151 Q170 ATX Motherboard w/ DVI-D, HDMI, DisplayPort, dual Gigabit LAN, RAID, iAMT (11.0), TPM (1.2), vPro, iSMART
MB990EF	LGA1151 H170 ATX Motherboard w/ DVI-D, HDMI, DisplayPort, dual Gigabit LAN, RAID, EuP/ErP, iSMART

Dimensions and Drawing



Remarks: 1. Specifications are subject to change without prior notice. 2. ODM/OEM is available. 3. For user's manual & datasheet download, visit www.ibase.com.tw.