



## Features

- 7th/6th Gen Intel® Xeon® E3 / Core™ i7/i5/i3/ Pentium® / Celeron® QC/DC processors, up to 4.0GHz
- 2x DDR4 SO-DIMM, Max. 32GB, ECC compatible
- Intel® Processor integrated graphics, supports DVI-D, HDMI and DisplayPort
- Dual Intel® Gigabit LAN
- 2x USB 2.0, 6x USB 3.0, 4x COM, 4x SATA III
- 2x Mini PCI-E slots, 1x mSATA, 1x PCI-E (x16)
- Watchdog timer, Digital I/O, iAMT (11.0), TPM (1.2), iSMART

## Specifications

CPU Socket	LGA1151
CPU	7th/6th Gen Intel® Xeon® E3/ Core™ i7/i5/i3/ Pentium®/ Celeron® QC/ DC processors, up to 4.0GHz
PCH	MI991AF-C236: Intel® C236 PCH MI991AF: Intel® Q170 PCH MI991EF: Intel® H110 PCH
Memory Types	2x DDR4 SO-DIMM, Max. 32GB (supports ECC by CPU SKUs)
BIOS	AMI
Watchdog Timer	256 levels
H/W Monitor	Yes
Storage Device Interface	1x mSATA
Expansion Slots	1x PCI-E (x16)
Mini Type Slots	2x Mini PCI-E
Graphics Controller	7th/6th Gen Intel® Xeon®/ Core™ i7/i5/i3/ Pentium® processor Integrated
Video Output	Supports DVI-D, HDMI and DisplayPort
Ethernet	MI991AF: Intel® I219LM Gigabit LAN PHY MI991EF: Intel® I219V Gigabit LAN PHY Intel® I211AT or I210AT Gigabit LAN( as 2nd LAN)
I/O Chip	Fintek F81846D-I
Serial Port	3x RS232, 1x RS232/422/485 (jumper-less selection)
USB 2.0	MI991EF: 2x USB 2.0 on board 2x USB 2.0 via pin-header
USB 3.X	MI991AF series: 6x USB 3.0 on board MI991EF: 4x USB 3.0
Serial ATA	MI991AF series: 4x SATA III MI991EF: 3x SATA III
Audio	Intel® C236/ Q170/ H110 PCH built-in HD audio + Realtek ALC888S codec
TPM	TPM (1.2)
Others	Digital I/O(4-in/4-out), EuP/ErP, RAID, iAMT (11.0), iSMART
Dimensions (L x W)	170mm x 170mm (6.7" x 6.7")
Power Consumption	Intel® Core™ I5-6500TE 2.3GHz w/ 2x DDR4-2133 4GB +12V: 3.56A; +5V: 1.28A; +5VSB: 0.08A; +3.3V: 0.32A
Operating Temperature	0°C~60°C (32°F~140°F)
Storage Temperature	-20°C~80°C (-4°F~176°F)
Relative Humidity	90% (non-condensing @60°C)

## Ordering Information

MI991AFS-C236	LGA1151 C236 Mini-ITX motherboard w/ DVI-D, HDMI, DisplayPort, dual Gigabit LAN, RAID, iAMT (11.0), TPM (1.2), iSMART (3.0)
MI991AFS	LGA1151 Q170 Mini-ITX motherboard w/ DVI-D, HDMI, DisplayPort, dual Gigabit LAN, RAID, iAMT (11.0), TPM (1.2), iSMART (3.0)
MI991EFS	LGA1151 H110 Mini-ITX motherboard w/ DVI-D, HDMI, DisplayPort, dual Gigabit LAN, EuP/ErP, iSMART (3.0)

## Dimensions and Drawing

