

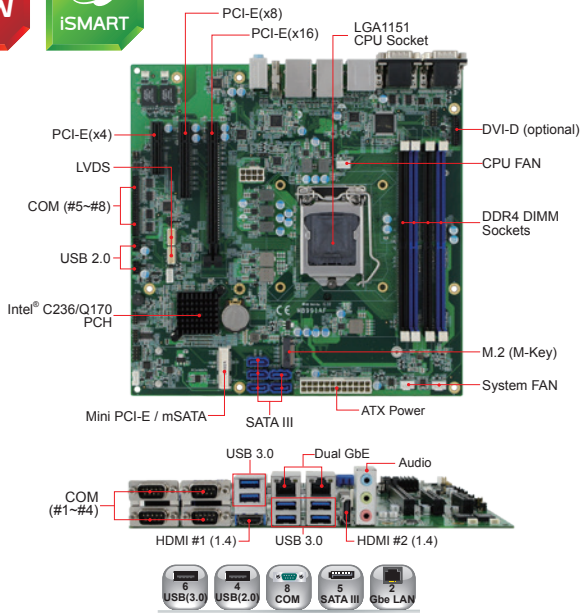
# MB991

## Micro ATX Motherboard

7th/6th Generation Intel® Core™ i7/i5/i3 and Pentium®/Celeron®  
Micro ATX Motherboard w/ Intel® C236 PCH



Preliminary



## Features

- 7th / 6th Generation Intel® Core™ i7/i5/i3 / Pentium® / Celeron® QC/DC processors, up to 4GHz
- 4x DDR4 DIMM, Max. 64GB
- Intel® processor integrated graphics device, supports HDMI (1.4), DVI-D and LVDS
- Dual Intel® Gigabit LAN
- 4x USB 2.0, 6x USB 3.0, 8x COM, 5x SATAIII
- 1x PCI-E(x16) [(x8) Link], 1x PCI-E(x8), 1x PCI-E(x4)
- 1x Mini PCI-E, 1x M.2 (M-key)
- Watchdog timer, Digital I/O, iAMT (11.0), iSMART

## System

CPU	LGA1151 for 7th/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® C236/Q170 PCH
BIOS	AMI
Watchdog Timer	256 levels
SSD	1x mSATA via Mini PCI-E (Thru SATA III) 1x M.2 slot [Thru PCI-E(x1) x4]
H/W Monitor	Yes
Expansion Slots	1x PCI-E(x16), 1x PCI-E(x8), 1x PCI-E(x4) 1x Mini PCI-E, 1x M.2

## Graphics

VGA Controller	7th/6th Generation Intel® Core™ i7 / i5 / i3 / Pentium®/ Celeron® processor Integrated
VGA Memory	Max. Shared memory – 1024MB
Display Interface	MB991AF-C236 / MB991AF: 2x HDMI and LVDS MB991AF-D: HDMI, LVDS and DVI-D

## LAN

Controller	Intel® I219LM Gigabit LAN PHY Intel® I211AT PCI-E Gigabit LAN
Connector	RJ-45 on board

## Multi I/O

I/O Chipset	Fintek F81846AD-I + F81504D 7x RS232, 1x RS232/422/485 (jumper-less selection), 5x SATAIII
USB	6 ports on board (USB 3.0) 4 ports via pin-header (USB 2.0)
Audio	Intel® C236 / Q170 PCH built-in HD audio + Realtek ALC662 codec
Others	Digital I/O (4-in/4-out), RAID, iAMT (11.0), iSMART

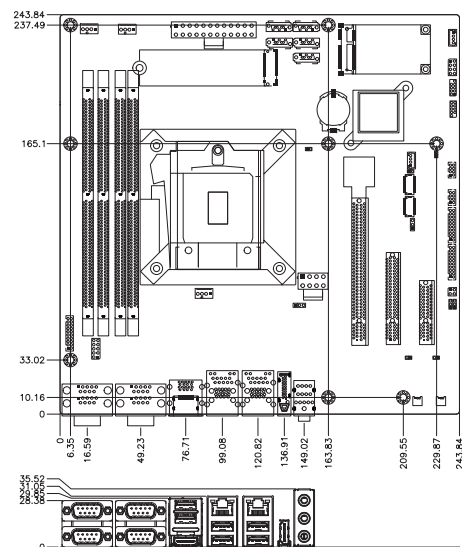
## Mechanical and Environmental

Dimensions	244mm x 244mm (9.6" x 9.6")
Max. Power Requirement	TBD
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

MB991AF-C236	LGA1151 C236 Micro ATX Motherboard w/ 2x HDMI and LVDS, dual Gigabit LAN, RAID, iAMT (11.0), iSMART
MB991AF	LGA1151 Q170 Micro ATX Motherboard w/ 2x HDMI and LVDS, dual Gigabit LAN, RAID, iAMT (11.0), iSMART
MB991AF-D	LGA1151 Q170 Micro ATX Motherboard w/ HDMI, DVI-D and LVDS, dual Gigabit LAN, RAID, iAMT (11.0), iSMART

## Dimensions and Drawing



01 Embedded Systems  
02 CPU Modules  
03 Motherboards  
04 Disk-Size SBCs  
05 CPU Cards