



## Specifications

CPU Socket	BGA1364 for 4th Gen Intel® mobile Core™ i7/i5/i3/ Celeron® QC/ DC processors
System Memory	2x DDR3/DDR3L SO-DIMM, Max. 16GB (Non-ECC)
System Chipset	MI980VF Series: Intel® QM87 PCH MI980F: Intel® HM86 PCH
BIOS	AMI
Watchdog Timer	256 levels
SSD	1x mSATA via Mini PCI-E (Thru SATA III)
H/W Monitor	Yes
Expansion Slot	1x PCI-E(x16), 2x Mini PCI-E(x1)
VGA Controller	4th Gen Intel® Core™ i7/i5/i3/ Celeron® integrated graphics, supports CRT, DVI, DisplayPort, LVDS / eDP
VGA Memory	Max. shared memory – 1024MB
Display Interface	Supports 24-bit dual-channel LVDS/eDP, DVI-I, DVI-D, DisplayPort
LAN Controller	MI980VF Series: Intel® I217LM Gigabit LAN PHY MI980F: Intel® I217V Gigabit LAN PHY Intel® I211AT PCI-E Gigabit LAN (as 2 <sup>nd</sup> LAN)
LAN Connector	2x RJ-45 on board
I/O Chipset	Fintek F81866AD-I 1x RS232/422/485 (jumperless selection), 5x RS232
USB	2x USB 2.0 on board, 4x USB 2.0 via pin-header 4x USB 3.0 ports on board
Serial ATA	MI980VF Series: 4x SATA III, 2x SATA II MI980F: 2x SATA III, 2x SATA II
Audio	Intel® QM87 / HM86 PCH built-in HD audio controller + ALC892 w/ 7.1 channel
Others	Digital I/O (4-in/4-out), ATX power connector, iSMART
Dimensions	170mm x 170mm (6.7" x 6.7")
Max. Power Requirement	Intel® Core™ i5-4402E 1.60GHz w/ 2x 2GB DDR3-1333 +12V: 2.01A; +5V: 0.73A; +5VSB: 1.70A; +3.3V: 0.29A
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)

## Features

- Onboard 4th Gen Intel® Core™ i7/i5/i3/ Celeron® QC / DC processors
- 2x DDR3/DDR3L SO-DIMM, Max. 16GB
- Integrated graphics, supports DVI-I/ DVI-D/ LVDS or eDP/ DisplayPort
- 2x Intel® PCI-E Gigabit LAN
- 6x USB 2.0, 4x USB 3.0, 6x COM, 4x SATA III, 2x SATA II
- 1x PCI-E(x16), 2x Mini PCI-E(x1)
- Watchdog timer, Digital I/O, iAMT (9.0), vPro, iSMART

## Ordering Information

MI980VF-4700EQ	Intel® QM87/Core™ i7-4700EQ (2.4GHz) Mini-ITX motherboard w/ DVI-I, DVI-D, DisplayPort, LVDS, dual Gigabit LAN, iAMT (9.0), RAID, TPM (1.2), vPro, iSMART, CPU cooler on board
MI980VF-4400E	Intel® QM87/Core™ i5-4400E (2.7GHz) Mini-ITX motherboard w/ DVI-I, DVI-D, DisplayPort, LVDS, dual Gigabit LAN, iAMT (9.0), RAID, TPM (1.2), vPro, iSMART, CPU cooler on board
MI980F-4100E	Intel® HM86 /Core™ i3-4100E (2.4GHz) Mini-ITX motherboard w/ DVI-I, DVI-D, DisplayPort, LVDS, dual Gigabit LAN, EuP/ErP compliant, iSMART, CPU cooler on board

## Dimensions and Drawing

