



## Features

- 4th Gen Intel® Xeon® E3/ Core™ i7/i5/i3 Pentium® / Celeron® Processor, up to 4.0GHz
- 2x DDR3-1600 SO-DIMM, Max. 16GB
- Supports DVI-D, VGA, LVDS and DisplayPort
- 2x Intel® PCI-E Gigabit LAN
- 6x USB 3.0, 6x USB 2.0, 6x COM, 4x SATA III
- 2x Mini PCI-E slots, 1x mSATA, 1x PCI-E (x16)
- Watchdog timer, Digital I/O, iAMT (9.1), TPM(1.2), iSMART3.0

## Specifications

|                          |                                                                                                          |
|--------------------------|----------------------------------------------------------------------------------------------------------|
| CPU Socket               | LGA1150                                                                                                  |
| CPU                      | 4th Gen Intel® Xeon® E3/ Core™ i7/i5/i3 /Pentium®/ Celeron® processors                                   |
| PCH                      | Intel® Q87 PCH                                                                                           |
| Memory Types             | 2x DDR3-1600 SO-DIMM, Max.16GB (Non-ECC)                                                                 |
| BIOS                     | AMI                                                                                                      |
| Watchdog Timer           | 256 levels                                                                                               |
| Storage Device Interface | 1x mSATA                                                                                                 |
| H/W Monitor              | Yes                                                                                                      |
| Expansion Slot           | 1x PCI-E (x16) slot                                                                                      |
| Mini Type Slots          | 2x Mini PCI-E (1x full-size, 1x half-size)                                                               |
| Graphics Controller      | 4th Gen Intel® Core™ DT i7/i5/i3 processors integrated graphics                                          |
| Video Output             | Supports VGA, DVI-D, LVDS and DisplayPort                                                                |
| Ethernet                 | Intel® I217LM Gigabit LAN PHY<br>Intel® I211AT PCI-E Gigabit LAN( as 2nd LAN)                            |
| I/O Chip                 | Fintek F81866AD-I                                                                                        |
| Serial Port              | 1x RS232/422/485 (jumperless selection)<br>5x RS232                                                      |
| USB 2.0                  | 6x USB 2.0 via pin header                                                                                |
| USB 3.0/ 3.1             | 6x USB 3.0 on board                                                                                      |
| Serial ATA               | 4x SATA III                                                                                              |
| Audio                    | Intel® Q87 PCH built-in HD audio controller + Realtek ALC892 w/ 7.1 channel                              |
| TPM                      | TPM (1.2)                                                                                                |
| Others                   | Digital I/O [4-in/4-out], TPM (1.2), iAMT (9.1), iSMART(3.0)                                             |
| Dimensions (L x W)       | 170mm x 170mm (6.7" x 6.7")                                                                              |
| Power Consumption        | Intel® Core™ i5-4570S 2.9GHz<br>2x DDR3-1333 2GB<br>+12V: 6.29A ; +5V: 2.51A; +5VSB: 0.55A; +3.3V: 0.76A |
| 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

|              |                                                                                                                          |
|--------------|--------------------------------------------------------------------------------------------------------------------------|
| MI981AF      | LGA1150 Q87 Mini-ITX motherboard w/ VGA, DVI-D, LVDS, DisplayPort, dual Gigabit LAN, TPM (1.2), iAMT (9.1), iSMART(3.0)  |
| MI981AF-C226 | LGA1150 C226 Mini-ITX motherboard w/ VGA, DVI-D, LVDS, DisplayPort, dual Gigabit LAN, TPM (1.2), iAMT (9.1), iSMART(3.0) |

## Dimensions and Drawing

