

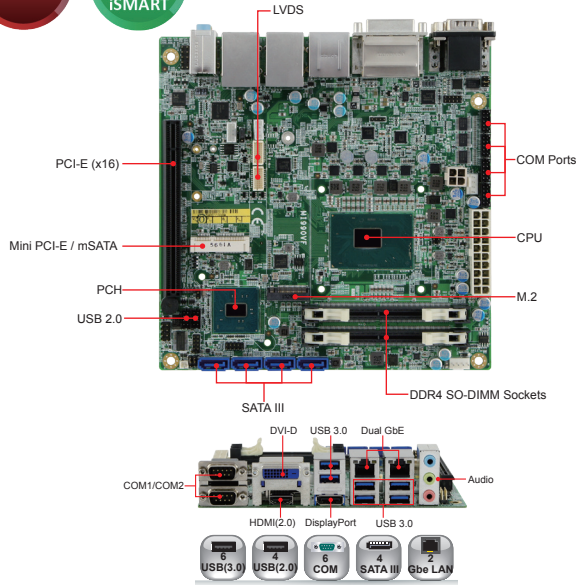
MI990

6th Generation Intel® Xeon® / Core™ i7/i5/i3 & Celeron®
Mini-ITX Motherboard w/ Intel® CM236 PCH

NEW

iSMART

Preliminary



System

CPU Type	BGA1440 for 6th Generation Intel® Xeon® / Core™ i7/ i5/ i3 / Celeron® QC/ DC processors, up to 3.7GHz
System Memory	2x DDR4 SO-DIMM, Max. 32GB (Support ECC by CPU SKUs)
System Chipset	Intel® CM236 / QM170 PCH
BIOS	AMI
Watchdog Timer	256 levels
SSD	1x mSATA via MiniPCIe (Thru SATAIII) 1x M.2 slot (Thru SATA III & PCIe)
H/W Monitor	Yes
Expansion Slot	1x PCI-E(x16), 2x Mini PCI-E, 1x M.2

Graphics

VGA Controller	6th Generation Intel® Xeon® / Core™ i7/ i5/ i3 / Celeron® processor integrated
VGA Memory	Shared memory
Display Interface	Supports DVI-D, HDMI (2.0), DisplayPort and 24-bit dual channel LVDS

LAN

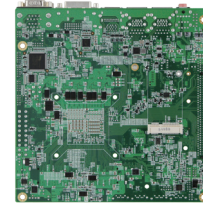
Controller	MI990VF series: Intel® I219LM Gigabit LAN PHY MI990EF series: Intel® I219V Gigabit LAN PHY Intel® I211AT PCI-E Gigabit LAN (as 2nd LAN)
Connector	2x RJ-45 on board

Multi I/O

I/O Chipset	Fintek F81866AD-I 5x RS232 1x RS232/422/485(Jumper-less selection) 4x SATA III
USB	6 ports on board (USB 3.0) 4 ports via pin-header (USB 2.0)
Audio	Intel® CM236 / QM170 PCH built-in HD audio + Realtek ALC892 codec
Others	Digital I/O(4-in/4-out), RAID, TPM(2.0) , iAMT(1.1.0) , iSMART

Features

- Onboard 6th Generation Intel® Xeon® / Core™ i7/i5/i3 / Celeron® QC/DC processors, up to 3.7GHz
- 2x DDR4 SO-DIMM, Max. 32GB
- Intel® Processor integrated graphic device, supports DVI-D, HDMI (2.0), DisplayPort and 24-bit dual channel LVDS
- 2x Intel® Gigabit LAN
- 4x USB 2.0, 6x USB 3.0, 6x COM, 4x SATAIII
- 1x PCI-E(x16), 2x Mini PCI-E, 1x M.2
- Watchdog timer, Digital I/O, iAMT (11.0), TPM (2.0), vPro, iSMART 3.0



Mechanical and Environmental

Dimensions	170mm x 170mm (6.7" x 6.7")
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

MI990VF-X28	Intel® CM236/ Xeon® E3-1505M v5(2.8GHz) Mini-ITX motherboard w/ DVI-D, HDMI (2.0), DisplayPort, LVDS, dual Gigabit LAN, RAID, iAMT (11.0) , TPM (2.0), vPro, iSMART 3.0, CPU cooler on board
MI990VF-6820	Intel® QM170/ Core™ i7-6820EQ(2.8GHz) Mini-ITX motherboard w/ DVI-D, HDMI (2.0), DisplayPort, LVDS, dual Gigabit LAN, RAID, iAMT (11.0) , TPM (2.0), vPro, iSMART 3.0, CPU cooler on board
MI990VF-6440	Intel® QM170/ Core™ i5-6440EQ(2.7GHz) Mini-ITX motherboard w/ DVI-D, HDMI, DisplayPort, LVDS, dual Gigabit LAN, RAID, iAMT (11.0) , TPM (2.0), vPro, iSMART 3.0, CPU cooler on board
MI990EF-6100	Intel® QM170/ Core™ i3-6100E(2.7GHz) Mini-ITX motherboard w/ DVI-D, HDMI (2.0), DisplayPort, LVDS, dual Gigabit LAN, RAID, EuP/ErP compliant, iSMART 3.0, CPU cooler on board