



## Features

- AMD Ryzen™ Embedded V1000 Series on board
- 2x DDR4 SO-DIMM, Max. 32GB
- 2x Gigabit LAN
- 1x HDMI(2.0a), 1x DisplayPort (1.2), 1x eDP or 1x 24-bit dual-channel LVDS
- 4x USB 3.1, 2x SATA III, 6x COM
- 1x PCI-E (x8), 1x Mini PCI-E socket, 1x M.2 (M-key)

## Specifications

CPU Socket	BGA 1140 APU on board
CPU	AMD Ryzen™ Embedded V1000 Series on board
PCH	N/A
Memory	DDR4 SO-DIMM, supports ECC 2x DDR4-2666, Max. 32GB
BIOS	AMI
Watchdog Timer	256 levels
H/W Monitor	Yes
Storage Device Interface	1x M.2 (supports NVMe)
Expansion Slots	1x PCI-E (x8), 1x M.2 (M-key, type: 2280)
Mini Type Slots	1x Mini PCI-E
Graphics Controller	AMD Radeon™ Vega GPU integrated
Video Output	1x HDMI (2.0a), 1x DisplayPort (1.2) 1x eDP or 1x 24-bit dual-channel LVDS
Ethernet	2x Intel® I211AT or I210AT Gigabit LAN
I/O Chipset	Nuvoton NCT6116D
Serial Port	2x RS232/422/485 (jumper-less selection) 4x RS232
USB 2.0	N/A
USB 3.X	4x USB 3.1 on board
Serial ATA	2x SATA III
Audio	built-in HD audio + Realtek ALC888S codec
TPM	N/A
Others	Digital I/O (4-in/4-out), iSMART, +12V~+24V DC-in
Dimensions (L x W)	170mm x 170mm (6.7" x 6.7")
Power Consumption	AMD Ryzen™ Embedded V1807B 3.35GHz w/ 2x 8GB DDR4-2133 +24V: 2.55A
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

MI988FS-1807	AMD Ryzen™ V1807B QC APU (3.35GHz/3.8GHz) on board Mini-ITX motherboard, with HDMI (2.0), DP, eDP or LVDS, dual Gigabit LAN, iSMART, +12V~+24V DC-in
MI988FS-1756	AMD Ryzen™ V1756B QC APU (3.25GHz/3.6GHz) on board Mini-ITX motherboard, with HDMI (2.0), DP, eDP or LVDS, dual Gigabit LAN, iSMART, +12V~+24V DC-in
MI988FS-1605	AMD Ryzen™ V1605B QC APU (2.0GHz~3.6GHz) on board Mini-ITX, with HDMI(2.0), DP, eDP or LVDS, dual Gigabit LAN, iSMART, +12V~+24V DC-in
MI988FS-1202	AMD Ryzen™ V1202B DC APU (2.3GHz/3.3GHz) on board Mini-ITX motherboard, with HDMI (2.0), DP, eDP or LVDS, dual Gigabit LAN, iSMART, +12V~+24V DC-in

## Dimensions and Drawing

