



Preliminary

IMB-A190M-L

Mini-ITX Motherboard

Key Features

- AMD Merlin Falcon Embedded R-series
- RX-418GD
- Supports Dual Channel DDR4 SO-DIMM 2400 MHz, up to 32GB
- 1 x HDMI, 1 x Displayport,
- 1 x Dual Channel 24-bit LVDS/ 4-Lane eDP panel (option)
- 4 x USB 3.1, 6 x USB 2.0, 2 x SATA3, 5 x COM
- 1 x PCIe x8, 1 x M.2 Key M, 1 x M.2 Key E
- 2 x Realtek LAN
- 1 x TPM header
- 12V only or +19V ~+24V DC-In

Specifications

Processor System

Dimensions	Mini-ITX (6.7-in x 6.7-in)
CPU	RX-418GD(QC, 1.8GHz, 12-35W)
Chipset	SoC

Expansion Slot

PCIe	1 x PCIe x8
Mini-PCIe	N/A
M.2	1 x Key M(2242/2260/2280) with PCIe x1 and SATA3 for SSD 1 x Key E(2230) with PCIe x1 and USB 2.0 for Wireless

Memory

Technology	Dual Channel DDR4 2400 MHz
Max	32GB
Socket	2 x SO-DIMM

Graphics

GPU	AMD Radeon 3 rd Generation Graphics Core Next
VGA	N/A
LVDS	Dual Channel 24-bit, max resolution up to 1920 x 1200@60Hz
eDP	Max resolution up to 2560 x 1600@ 60Hz Max (Optional)
HDMI	Supports HDMI 1.4a, max resolution 1920 x 1200
DVI	N/A
DisplayPort	DisplayPort++ 1.2 with max resolution up to 4096 x 2160@ 60Hz
Multi Display	Dual Display

Ethernet

Interface	10/100/1000 Mbps
Controller	2 x Realtek RTL8111G

Watchdog Timer

Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1,2...255sec

Rear I/O

VGA	N/A
DVI	N/A
HDMI	1
DisplayPort	1
Ethernet	2
USB	4 x USB 3.0
Audio Jack	2 (Mic-in, Line-out)
Serial	1 x COM (RS-232/422/485), 1 x COM (RS-232)
PS/2	1 x PS/2 combo

Internal Connector

USB	4 x USB 2.0
LVDS	1
eDP	1
VGA	N/A
Serial	3 x RS-232
SATA	2 x SATA3 (6.0 Gb/s), one is shared with M.2 Key M
Parallel	N/A
GPIO	4 x GPI, 4 x GPO
SATA PWR Output Con	1
Speaker Header	1
TPM	1 x Header

Power Requirements

Input PWR	12V only or +19V ~+24V DC-In
Power On	AT/ATX Supported AT : Directly PWR on as Power input ready ATX: Press Button to PWR on after Power input ready

Environment

Operating Temperature	0°C – 60°C
Storage Temperature	-40°C – 85° C

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