



## Key Features

- AMD AM4 Socket with Ryzen Series CPU (Raven Ridge/Matisse)
- Supports Dual Channel DDR4 SO DIMM 3200 MHz, up to 32GB
- 3 x Displayport, 1 x eDP
- 6 x USB 3.1, 2 x USB 3.0, 4 x USB 2.0, 3 x SATA3, 2 x COM
- 1 x PCIe x16, 2 x M.2 Key M, 1 x M.2 Key B, 1 x M.2 Key E
- 2 x Intel LAN
- 1 x Onboard TPM 2.0 IC
- ATX PWR 24+8-pin

## Specifications

### Processor System

Dimensions	Mini-ITX (6.7-in x 6.7-in)
CPU	AMD Ryzen Series-Raven Ridge (2200G, QC,3.5GHz,65W) (2400G, QC, 3.6GHz,65W) AMD Ryzen 3000-Matisse (3600,6cores,3.6GHz,65W) (3700X,8cores,3.6GHz,65W)
Chipset	AMD Promontory B450

### Expansion Slot

PCIe	1 x PCIe x16 (PCIe GEN III x8 for Raven Ridge CPU) (PCIe GEN IV x16 for Matisse CPU)
M.2	1 x Key M(2242/2260/2280) with PCIex4 and SATA3 for SSD 1 x Key M(2242/2280)with PCIe x1 for SSD 1 x Key B(3042) with PCIex1 ,USB 2.0 and SIM Socket for 4G 1 x Key E(2230)with PCIe x1 and USB2.0 for Wireless

### Memory

Technology	Dual Channel DDR4 3200 MHz
Max	32GB
Socket	2 x SO DIMM
ECC Support	N/A

### Graphics

GPU	AMD Radeon™ Vega Series Graphics in Ryzen Series APU (For Raven Ridge CPU)
VGA	N/A
LVDS	N/A
eDP	eDP 1.4 (share with DisplayPort) with max resolution up to 4096x2160@60Hz
HDMI	N/A
DVI	N/A
DisplayPort	DisplayPort 1.2 with max resolution up to 4096x2160@60Hz
Multi Display	Triple Display

### Ethernet

Interface	10/100/1000 Mbps
Controller	2 x Intel I210-AT

### Rear I/O

VGA	N/A
DVI	N/A
HDMI	N/A
DisplayPort	3
Ethernet	2
USB	6 x USB 3.1
Audio Jack	2 (Mic-in.Line-out)
Serial	N/A
PS/2	N/A

### Internal Connector

USB	2 x USB 3.0, 4 x USB 2.0
LVDS	N/A
eDP	1 (share with DisplayPort)
VGA	N/A
Serial	2 x COM(RS-232/422/485)
SATA	3 x SATA3
Parallel	N/A
GPIO	N/A
SATA PWR Output Con	1
Speaker Header	1
TPM	1 x Onboard TPM 2.0 IC

### Watchdog Timer

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

### Power Requirements

Input PWR	ATX PWR 24+8-pin
Power On	AT/ATX Supported AT : Directly PWR on as Power input ready Environment ATX: Press Button to PWR on after Power input ready

### Environment

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