Gaming Armor

Power

- Hi-Density Power Connector (8 pin)

Memory

- 15μ Gold Contact in DIMM Slots

VGA Card

- 15μ Gold Contact in VGA PCIe Slot (PCIE1)

Internet

- Intel® LAN

Cooling

- 2oz Copper PCB

Audio

- Creative Sound Blaster™ Cinema 5

Unique Feature

ASRock USB 3.1 Gen2

- ASRock USB 3.1 Gen2 Type-A Port (10 Gb/s)

- ASRock USB 3.1 Gen2 Type-C Port (10 Gb/s)

ASRock Super Alloy

- Premium Power Choke

- Dual-N MOSFET

- Nichicon 12K Black Caps (100% Japan made high quality conductive polymer capacitors)

- Matte Black PCB

- High Density Glass Fabric PCB

- 2oz Copper PCB

Intel® 802.11ac WiFi

ASRock Ultra M.2 (PCIe Gen3 x4 & SATA3)

ASRock Full Spike Protection (for all USB, Audio, LAN Ports)

ASRock Live Update & APP Shop

CPU

- Supports AMD AM4 Socket Ryzen™ 2000, 3000 and 5000 Series Desktop Processors

- Digi Power design

- 8 Power Phase design

Chipset

- AMD Promontory B450

Memory

- Dual Channel DDR4 Memory Technology

- 2 x DDR4 DIMM Slots

- AMD Ryzen series CPUs (Matisse) support DDR4 3200 / 2933 / 2667 / 2400 / 2133 ECC & non-ECC, un-buffered memory*

- AMD Ryzen series CPUs (Pinnacle Ridge) support DDR4 3466+(OC) / 3200(OC) / 2933 / 2667 / 2400 / 2133 ECC & non-ECC, un-buffered memory*

- AMD Ryzen series CPUs (Picasso) support DDR4 2933 / 2667 / 2400 / 2133 non-ECC, un-buffered memory*

- AMD Ryzen series CPUs (Summit Ridge) support DDR4 3466+(OC) / 3200(OC) / 2933(OC) / 2667 / 2400 / 2133 ECC & non-ECC, un-buffered memory*

- AMD Ryzen series CPUs (Raven Ridge) support DDR4 3466+(OC) / 3200(OC) / 2933 / 2667 / 2400 / 2133 non-ECC, un-buffered memory*

- Max. capacity of system memory: 64GB**

- Supports Extreme Memory Profile (XMP) memory modules

- 15μ Gold Contact in DIMM Slots

*For Ryzen Series CPUs (Picasso and Raven Ridge), ECC is only supported with PRO CPUs.

Please refer to below table for AMD non-XMP memory frequency support.

Ryzen Series CPUs (Matisse):

Ryzen Series CPUs (Pinnacle Ridge):

Ryzen Series CPUs (Picasso):

Ryzen Series CPUs (Summit Ridge):

Ryzen Series CPUs (Raven Ridge):

SR: Single rank DIMM, 1Rx4 or 1Rx8 on DIMM module label

DR: Dual rank DIMM, 2Rx4 or 2Rx8 on DIMM module label

**Due to the operating system limitation, the actual memory size may be less than 4GB for the reservation for system usage under Windows® 32-bit OS. For Windows® 64-bit OS with 64-bit CPU, there is no such limitation.

BIOS

- 128Mb AMI UEFI Legal BIOS with GUI support

- Supports "Plug and Play"

- ACPI 5.1 compliance wake up events

- Supports jumperfree

- SMBIOS 2.3 support

- CPU, DRAM, PCH 1.05V, PROM 2.5V, Voltage Multi-adjustment

Graphics

- Integrated AMD Radeon™ Vega Series Graphics in Ryzen Series APU*

- Integrated AMD Radeon™ R-Series Graphics in A-series APU*

- DirectX 12, Pixel Shader 5.0

- Shared memory default 2GB. Max Shared memory supports up to 16GB.**

- Dual graphics output: Support HDMI and DisplayPort 1.2 by independent display controllers

- Supports HDMI 2.0 with max. resolution up to 4K x 2K (4096x2160) @ 60Hz

- Supports DisplayPort 1.2 with max. resolution up to 4K x 2K (4096x2160) @ 60Hz

- Supports Auto Lip Sync, Deep Color (12bpc), xvYCC and HBR (High Bit Rate Audio) with HDMI 2.0 Ports (Compliant HDMI 2.0 monitor is required)

- Supports HDCP 1.4 with HDMI 2.0 and DisplayPort 1.2 Ports

- Supports 4K Ultra HD (UHD) playback with HDMI 2.0 and DisplayPort 1.2 Ports

*Actual support may vary by CPU

**The Max shared memory 16GB requires 32GB system memory installed.

Audio

- 7.1 CH HD Audio with Content Protection (Realtek ALC1220 Audio Codec)

- Premium Blu-ray Audio support

- Supports Surge Protection

- Nichicon Fine Gold Series Audio Caps

- 120dB SNR DAC with Differential Amplifier

- Pure Power-In

- Direct Drive Technology

- PCB Isolate Shielding

- Impedance Sensing on Rear Out port

- Individual PCB Layers for R/L Audio Channel

- Gold Audio Jacks

- Supports Creative Sound Blaster™ Cinema 5

LAN

- Gigabit LAN 10/100/1000 Mb/s

- GigaLAN Intel® I211AT

- Supports Wake-On-LAN

- Supports Lightning/ESD Protection

- Supports Energy Efficient Ethernet 802.3az

- Supports PXE

Wireless LAN

- Intel® 802.11ac WiFi Module

- Supports IEEE 802.11a/b/g/n/ac

- Supports Dual-Band (2.4/5 GHz)

- Supports high speed wireless connections up to 433Mbps

- Supports Bluetooth 4.2 / 3.0 + High speed class II

Slots

AMD Ryzen series CPUs (Matisse, Summit Ridge and Pinnacle Ridge)

- 1 x PCI Express 3.0 x16 Slot (PCIE1: x16 mode) (Supports PCIe riser cards to extend one x16 slot to two x8 slots if you install AMD Ryzen series CPUs)*

AMD Ryzen series CPUs (Picasso, Raven Ridge)

- 1 x PCI Express 3.0 x16 Slot (PCIE1: x8 mode)*

AMD Athlon series CPUs

- 1 x PCI Express 3.0 x16 Slot (PCIE1: x4 mode)*

- 1 x Vertical M.2 Socket (Key E) with the bundled WiFi-802.11ac module (on the rear I/O)

- 15μ Gold Contact in VGA PCIe Slot (PCIE1)

*Supports NVMe SSD as boot disks

Storage

- 4 x SATA3 6.0 Gb/s Connectors, support RAID (RAID 0, RAID 1 and RAID 10), NCQ, AHCI and Hot Plug

- 1 x Ultra M.2 Socket, supports M Key type 2280 M.2 SATA3 6.0 Gb/s module and M.2 PCI Express module up to Gen3 x4 (32 Gb/s) (with Matisse, Picasso, Summit Ridge, Raven Ridge and Pinnacle Ridge) or Gen3 x2 (16 Gb/s) (with Athlon series APU)*

*Supports NVMe SSD as boot disks

Connector

- 1 x LPC Header

- 1 x Addressable LED Header*

- 1 x AMD Fan LED Header**

- 1 x CPU Fan Connector (4-pin)***

- 2 x Chassis/Water Pump Fan Connectors (4-pin) (Smart Fan Speed Control)****

- 1 x 24 pin ATX Power Connector

- 1 x 8 pin 12V Power Connector (Hi-Density Power Connector)

- 1 x Front Panel Audio Connector (15μ Gold Audio Connector)

- 1 x AMD LED Fan USB Header

- 1 x USB 2.0 Header (Supports 2 USB 2.0 ports) (Supports ESD Protection)

- 1 x USB 3.1 Gen1 Header (Supports 2 USB 3.1 Gen1 ports) (Supports ESD Protection)

*Supports in total up to 5V/3A, 15W LED Strip

**The AMD Fan LED Header supports LED strips of maximum load of 3A (36W) and length up to 2.5M.

***The CPU Fan Connector supports the CPU fan of maximum 1A (12W) fan power.

****The Chassis/Water Pump Fan supports the water cooler fan of maximum 2A (24W) fan power.

CHA_FAN1/WP and CHA_FAN2/WP can auto detect if 3-pin or 4-pin fan is in use.

Rear Panel I/O

- 2 x Antenna Ports

- 1 x PS/2 Mouse/Keyboard Port

- 1 x HDMI Port

- 1 x DisplayPort 1.2

- 1 x Optical SPDIF Out Port

- 2 x USB 2.0 Ports (Supports ESD Protection)*

- 1 x USB 3.1 Gen2 Type-A Port (10 Gb/s) (Supports ESD Protection)

- 1 x USB 3.1 Gen2 Type-C Port (10 Gb/s) (Supports ESD Protection)

- 2 x USB 3.1 Gen1 Ports (Supports ESD Protection)

- 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED)

- HD Audio Jacks: Rear Speaker / Central / Bass / Line in / Front Speaker / Microphone (Gold Audio Jacks)

*1 x Fatal1ty Mouse Port (USB 2.0) is included

Software and UEFI

Software

- ASRock F-Stream

- ASRock Polychrome SYNC

- ASRock Key Master

- ASRock XFast LAN

UEFI

- ASRock Full HD UEFI

- ASRock Instant Flash

- ASRock Easy RAID Installer

*These utilities can be downloaded from ASRock Live Update & APP Shop.

Support CD

- Drivers, Utilities, AntiVirus Software (Trial Version), Google Chrome Browser and Toolbar

Accessories

- Quick Installation Guide, Support CD, I/O Shield

- 2 x SATA Data Cables

- 2 x ASRock WiFi 2.4/5 GHz Antennas

- 1 x Screw for M.2 Socket

Hardware Monitor

- Temperature Sensing: CPU, Chassis/Water Pump Fans

- Fan Tachometer: CPU, Chassis/Water Pump Fans

- Quiet Fan (Auto adjust chassis fan speed by CPU temperature): CPU, Chassis/Water Pump Fans

- Fan Multi-Speed Control: CPU, Chassis/Water Pump Fans

- Voltage monitoring: +12V, +5V, +3.3V, CPU Vcore

Form Factor

- Mini-ITX Form Factor: 6.7-in x 6.7-in, 17.0 cm x 17.0 cm

OS

- Microsoft® Windows® 10 64-bit

Certifications

- FCC, CE

- ErP/EuP ready (ErP/EuP ready power supply is required)