

B550 PHANTOM GAMING 4

PRODUCT BRIEF:

- Supports 3rd Gen AMD AM4 Ryzen™ / Future AMD Ryzen™ Processors (3000 and 4000 Series Processors)
- 8 Power Phase Design, Digi Power
- Supports DDR4 4733+ (OC)
- 1 PCIe 4.0 x16, 1 PCIe 3.0 x16, 2 PCIe 3.0 x1, 1 M.2 Key E for WiFi
- Graphics Output Options: HDMI
- AMD CrossFireX™
- 7.1 CH HD Audio (Realtek ALC1200 Audio Codec), Nahimic Audio
- 6 SATA3, 1 Hyper M.2 (PCIe Gen4 x4), 1 M.2 (PCIe Gen3 x2 & SATA3)
- 8 USB 3.2 Gen1 (2 Front, 6 Rear)
- Gigabit LAN

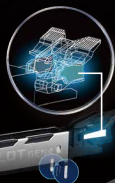


Reinforced Steel Slot [PCIe 4.0 Version]



The reinforced steel slot comes with the next generation PCI Express 4.0 standard. The various benefits include:

- Extra anchor points
- Stronger latch
- Ensure signal stability
- Make sure heavy graphics cards to be well-installed.



Hyper M.2 For SSD

Supports the next generation PCI Express 4.0 M.2 SSDs, it is capable of perform twice the speed compared to previous 3rd generation, giving a lightning fast data transferring experience.



M.2 (KEY E) For WiFi

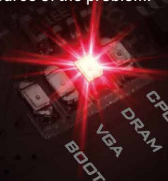
Besides the onboard LAN port, users may also choose 802.11ac wireless connections by M.2 (Key E) slot.



*WiFi module is not included.

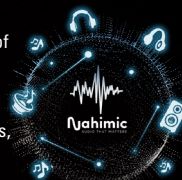
Post Status Checker

Status LED is an easy troubleshooting tool that shows the BOOT / CPU / Memory / VGA operation every time you start up the system, it's an fast and easy way to identify the source of the problem.



Nahimic Audio

Nahimic 3D sound technologies recreate the sound experience of 7.1 channels on a regular stereo listening system such as headphones or speakers. It has been optimized to satisfy gamers, moviegoers, or music lovers and anyone who is looking for an outstanding sound experience in high definition.



SuperAlloy

XXL Aluminum Alloy Heatsink
Premium 50A Power Choke
Sapphire Black PCB
High Density Glass Fabric PCB
2oz Copper PCB



Detail Specification

Platform	- ATX Form Factor: 12.0-in x 9.6-in, 30.5 cm x 24.4 cm - Solid Capacitor design - 2oz Copper PCB																																																																																											
Unique Feature	ASRock Super Alloy - XXL Aluminum Alloy Heatsink - Premium 50A Power Choke - Sapphire Black PCB - High Density Glass Fabric PCB - 2oz Copper PCB ASRock Steel Slot Gen4 ASRock Hyper M.2 (PCIe Gen4x4) ASRock POST Status Checker (PSC) ASRock Full Spike Protection (for all USB, Audio, LAN Ports) ASRock Live Update & APP Shop																																																																																											
Gaming Armor	Memory - 15μ Gold Contact in DIMM Slots Cooling - XXL Aluminum Alloy Heatsink	Audio - Nahimic Audio																																																																																										
CPU	- Supports 3 rd Gen AMD AM4 Ryzen™ / future AMD Ryzen™ Processors (3000 and 4000 Series Processors)* * Not compatible with AMD Ryzen™ 5 3400G and Ryzen™ 3 3200G. - Digi Power design - 8 Power Phase design																																																																																											
Chipset	- AMD B550																																																																																											
Memory	- Dual Channel DDR4 Memory Technology - 4 x DDR4 DIMM Slots - AMD Ryzen series CPUs (Matisse) support DDR4 4533+(OC)/4466(OC)/4400(OC)/4333(OC)/4266(OC)/4200(OC)/4133(OC)/4000(OC)/3866(OC)/3800(OC)/3733(OC)/3600(OC)/3466(OC)/3200/2933/2667/2400/2133 ECC & non-ECC, un-buffered memory* - AMD Ryzen series APUs (Renoir) support DDR4 4733+(OC)/4666(OC)/4600(OC)/4533(OC)/4466(OC)/4400(OC)/4333(OC)/4266(OC)/4200(OC)/4133(OC)/4000(OC)/3866(OC)/3800(OC)/3733(OC)/3600(OC)/3466(OC)/3200/2933/2667/2400/2133 ECC & non-ECC, un-buffered memory* * Please refer to Memory Support List on ASRock's website for more information. (http://www.asrock.com/) - Max. capacity of system memory: 128GB - Supports Extreme Memory Profile (XMP) memory modules - 15μ Gold Contact in DIMM Slots * Please refer to below table for AMD non-XMP memory frequency support. For more details, please refer to the QVL on ASRock's website. Ryzen Series CPUs (Matisse): <table><tr><th colspan="4">UDIMM Memory Slot</th><th>Frequency (MHz)</th></tr><tr><th>A1</th><th>A2</th><th>B1</th><th>B2</th><th></th></tr><tr><td>-</td><td>SR</td><td>-</td><td>-</td><td>3200</td></tr><tr><td>-</td><td>DR</td><td>-</td><td>-</td><td>3200</td></tr><tr><td>-</td><td>SR</td><td>-</td><td>SR</td><td>3200</td></tr><tr><td>-</td><td>DR</td><td>-</td><td>DR</td><td>3200</td></tr><tr><td>SR</td><td>SR</td><td>SR</td><td>SR</td><td>2933</td></tr><tr><td>SR/DR</td><td>DR</td><td>SR/DR</td><td>SR</td><td>2667</td></tr><tr><td>SR/DR</td><td>SR/DR</td><td>SR/DR</td><td>SR/DR</td><td>2667</td></tr></table> SR: Single rank DIMM, 1Rx4 or 1Rx8 on DIMM module label DR: Dual rank DIMM, 2Rx4 or 2Rx8 on DIMM module label Ryzen Series APUs (Renoir): <table><tr><th colspan="4">UDIMM Memory Slot</th><th>Frequency (MHz)</th></tr><tr><th>A1</th><th>A2</th><th>B1</th><th>B2</th><th></th></tr><tr><td>-</td><td>SR</td><td>-</td><td>-</td><td>3200</td></tr><tr><td>-</td><td>DR</td><td>-</td><td>-</td><td>3200</td></tr><tr><td>-</td><td>SR</td><td>-</td><td>SR</td><td>3200</td></tr><tr><td>-</td><td>DR</td><td>-</td><td>DR</td><td>3200</td></tr><tr><td>SR</td><td>SR</td><td>SR</td><td>SR</td><td>2933</td></tr><tr><td>SR/DR</td><td>DR</td><td>SR/DR</td><td>SR</td><td>2667</td></tr><tr><td>SR/DR</td><td>SR/DR</td><td>SR/DR</td><td>SR/DR</td><td>2667</td></tr></table>		UDIMM Memory Slot				Frequency (MHz)	A1	A2	B1	B2		-	SR	-	-	3200	-	DR	-	-	3200	-	SR	-	SR	3200	-	DR	-	DR	3200	SR	SR	SR	SR	2933	SR/DR	DR	SR/DR	SR	2667	SR/DR	SR/DR	SR/DR	SR/DR	2667	UDIMM Memory Slot				Frequency (MHz)	A1	A2	B1	B2		-	SR	-	-	3200	-	DR	-	-	3200	-	SR	-	SR	3200	-	DR	-	DR	3200	SR	SR	SR	SR	2933	SR/DR	DR	SR/DR	SR	2667	SR/DR	SR/DR	SR/DR	SR/DR	2667
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Expansion Slot	AMD Ryzen series CPUs (Matisse) - 2 x PCI Express x16 Slots (PCIe1: Gen4x16 mode; PCIe3: Gen3 x4 mode)* AMD Ryzen series APUs (Renoir) - 2 x PCI Express x16 Slots (PCIe1: Gen3x16 mode; PCIe3: Gen3 x4 mode)* * Supports NVMe SSD as boot disks - 2 x PCI Express 3.0 x1 Slots - Supports AMD Quad CrossFireX™ and CrossFireX™ - 1 x M.2 Socket (Key E), supports type 2230 WiFi/BT module																																																																																											
Graphics	- Integrated AMD Radeon™ Vega Series Graphics in Ryzen Series APU* * Actual support may vary by CPU - DirectX 12, Pixel Shader 5.0 - Shared memory default 2GB. Max Shared memory supports up to 16GB. * The Max shared memory 16GB requires 32GB system memory installed. - Supports HDMI 2.1 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 2.1 Port (Compliant HDMI monitor is required) - Supports HDR (High Dynamic Range) with HDMI 2.1 - Supports HDCP 2.3 with HDMI 2.1 Port - Supports 4K Ultra HD (UHD) playback with HDMI 2.1 Port - Supports Microsoft PlayReady®																																																																																											
Audio	- 7.1 CH HD Audio with Content Protection (Realtek ALC1200 Audio Codec) - Premium Blu-ray Audio support - Supports Surge Protection - PCB Isolate Shielding - Individual PCB Layers for R/L Audio Channel - Nahimic Audio																																																																																											
LAN	- PCIe x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111H - Supports Wake-On-LAN - Supports Lightning/ESD Protection - Supports Energy Efficient Ethernet 802.3az - Supports PXE																																																																																											

Rear Panel I/O	- Antenna Bracket - 1 x PS/2 Mouse/Keyboard Port - 1 x HDMI Port - 6 x USB 3.2 Gen1 Ports (Supports ESD Protection) - 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED) - HD Audio Jacks: Line in / Front Speaker / Microphone	
Storage	- 6 x SATA3 6.0 Gb/s Connectors, support RAID (RAID 0, RAID 1 and RAID 10), NCQ, AHCI and Hot Plug* * M2_3 and SATA3_5_6 share lanes. If either one of them is in use, the other one will be disabled. - 1 x Hyper M.2 Socket (M2_1), supports M Key type 2260/2280/22110 M.2 PCI Express module up to Gen4x4 (64 Gb/s) (with Matisse) or Gen3x4 (32 Gb/s) (with Renoir)** - 1 x M.2 Socket (M2_3), supports M Key type 2242/2260/2280 M.2 SATA3 6.0 Gb/s module and M.2 PCI Express module up to Gen3 x2 (16 Gb/s)** ** Supports NVMe SSD as boot disks ** Supports ASRock U.2 Kit	
Connector	- 1 x COM Port Header - 1 x SPI TPM Header - 1 x Power LED and Speaker Header - 2 x RGB LED Headers * Support in total up to 12V/3A, 36W LED Strip - 2 x Addressable LED Headers * Support in total up to 5V/3A, 15W LED Strip - 1 x CPU Fan Connector (4-pin) * The CPU Fan Connector supports the CPU fan of maximum 1A (12W) fan power. - 1 x CPU/Water Pump Fan Connector (4-pin) (Smart Fan Speed Control) - 4 x Chassis/Water Pump Fan Connectors (4-pin) (Smart Fan Speed Control) * The Chassis/Water Pump Fan supports the water cooler fan of maximum 2A (24W) fan power. * CPU_FAN2/WP, CHA_FAN1/WP, CHA_FAN2/WP, CHA_FAN3/WP and CHA_FAN4/WP can auto detect if 3-pin or 4-pin fan is in use. - 1 x 24 pin ATX Power Connector - 1 x 8 pin 12V Power Connector - 1 x 4 pin 12V Power Connector - 1 x Front Panel Audio Connector - 2 x USB 2.0 Headers (Support 4 USB 2.0 ports) (Supports ESD Protection) - 1 x USB 3.2 Gen1 Header (Supports 2 USB 3.2 Gen1 ports) (Supports ESD Protection)	
BIOS Feature	- 256Mb 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, CPU VDDCR_SOC, DRAM, VPPM, 1.05V_PROM_S5, 2.5V_PROM, +1.8VSB, VDDP Voltage Multi-adjustment	
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), Google Chrome Browser and Toolbar	
Software and UEFI	Software - ASRock Motherboard Utility (Phantom Gaming Tuning) - ASRock Polychrome SYNC - ASRock Key Master - ASRock XFast LAN * These utilities can be downloaded from ASRock Live Update & APP Shop.	UEFI - ASRock Full HD UEFI - ASRock Instant Flash
Hardware Monitor	- Temperature Sensing: CPU, CPU/Water Pump, Chassis/Water Pump Fans - Fan Tachometer: CPU, CPU/Water Pump, Chassis/Water Pump Fans - Quiet Fan (Auto adjust chassis fan speed by CPU temperature): CPU, CPU/Water Pump, Chassis/Water Pump Fans - Fan Multi-Speed Control: CPU, CPU/Water Pump, Chassis/Water Pump Fans - Voltage monitoring: +12V, +5V, +3.3V, CPU Vcore, CPU VDDCR_SOC, DRAM, VPPM, 1.05V_PROM_S5, +1.8V, VDDP	
OS	- Microsoft® Windows® 10 64-bit	
Certifications	- FCC, CE - ErP/EuP ready (ErP/EuP ready power supply is required)	
Accessories	- Quick Installation Guide, Support CD, I/O Shield - 2 x SATA Data Cables - 3 x Screws for M.2 Sockets	