

Z170 GAMING K4

Intel® Z170 Chipset

ASRock

Product Brief



- ASRock Super Alloy
- Gaming Armor -Memory / VGA Card / Cooling / Internet / Audio
- Supports 6th Generation Intel® Core™ Processors (Socket 1151)
- Digi Power, 10 Power Phase Design
- Supports Dual Channel DDR4 3200+(OC)
- 2 PCIe 3.0 x16, 3 PCIe 3.0 x1
- AMD Quad CrossFireX™ and CrossFireX™
- Graphics Output Options: DVI-D, HDMI
- 7.1 CH HD Audio (Realtek ALC1150 Audio Codec), Supports Purity Sound™ 3 & DTS Connect
- Killer™ E2400 Gigabit LAN
- 2 SATA Express, 6 SATA3, 1 Ultra M.2 (PCIe Gen3 x4 & SATA3)
- 8 USB 3.0 (5 Type-A + 1 Type-C, 2 Front)
- Supports Full Spike Protection, ASRock Live Update & APP Shop, F-Stream, Key Master, XSplit



Detail Specification

Platform	- ATX Form Factor: 12.0-in x 8.6-in, 30.5 cm x 21.8 cm	
Unique Feature	ASRock Super Alloy - XXL Aluminum Alloy Heatsink - Nichicon 12K Platinum Caps (100% Japan made high quality conductive polymer capacitors) - I/O Armor - Matte Black PCB - High Density Glass Fabric PCB ASRock Ultra M.2 (PCIe Gen3 x4 & SATA3) ASRock Full Spike Protection ASRock Live Update & APP Shop	
Gaming Armor	Memory - 15µ Gold Contact in DIMM Slots VGA Card - 15µ Gold Contact in VGA PCIe Slot (PCIe2) - PCIe Power Connector Internet - Killer™ E2400 LAN	Cooling - XXL Aluminum Alloy Heatsink Audio - Purity Sound™ 3
CPU	- Supports 6 th Generation Intel® Core™ i7/i5/i3/Pentium®/Celeron® Processors (Socket 1151) - Digi Power design - 10 Power Phase design - Supports Intel® Turbo Boost 2.0 Technology - Supports Intel® K-Series unlocked CPUs - Supports ASRock BCLK Full-range Overclocking	
Chipset	- Intel® Z170	
Memory	- Dual Channel DDR4 Memory Technology - 4 x DDR4 DIMM Slots - Supports DDR4 3200+(OC)/2933(OC)/2800(OC)/2400(OC)/2133 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: 64GB - Supports Intel® Extreme Memory Profile (XMP) 2.0 - 15µ Gold Contact in DIMM Slots	
Expansion Slot	- 2 x PCI Express 3.0 x16 Slots (PCIe2: x16 mode; PCIe4: x4 mode)* * Supports NVMe SSD as boot disks - 3 x PCI Express 3.0 x1 Slots (Flexible PCIe) - Supports AMD Quad CrossFireX™ and CrossFireX™ - 15µ Gold Contact in VGA PCIe Slot (PCIe2)	
Graphics	* Intel® HD Graphics Built-in Visuals and the VGA outputs can be supported only with processors which are GPU integrated. - Supports Intel® HD Graphics Built-in Visuals : Intel® Quick Sync Video with AVC, MVC (S3D) and MPEG-2 Full HW Encode1, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® Insider™, Intel® HD Graphics 510/530 - Pixel Shader 5.0, DirectX 12 - Max. shared memory 1024MB * The size of maximum shared memory may vary from different operating systems. - Dual graphics output: Support DVI-D and HDMI ports by independent display controllers - Supports HDMI with max. resolution up to 4K x 2K (4096x2160) @ 24Hz / (3840x2160) @ 30Hz - Supports DVI-D with max. resolution up to 1920x1200 @ 60Hz - Supports Auto Lip Sync, Deep Color (12bpc), xvYCC and HBR (High Bit Rate Audio) with HDMI Port (Compliant HDMI monitor is required) - Supports Accelerated Media Codecs: HEVC, VP8, VP9 - Supports HDCP with DVI-D and HDMI Ports - Supports Full HD 1080p Blu-ray (BD) playback with DVI-D and HDMI Ports	
Audio	- 7.1 CH HD Audio with Content Protection (Realtek ALC1150 Audio Codec) - Premium Blu-ray Audio support - Supports Surge Protection (ASRock Full Spike Protection) - Supports Purity Sound™ 3 - Nichicon Fine Gold Series Audio Caps - 115dB SNR DAC with Differential Amplifier - TI® NE5532 Premium Headset Amplifier (Supports up to 600 Ohm headsets) - Pure Power-In - Direct Drive Technology - PCB Isolate Shielding - Supports DTS Connect	
LAN	- PCIe x1 Gigabit LAN 10/100/1000 Mb/s - Killer™ E2400 Series - Supports Wake-On-LAN - Supports Lightning/ESD Protection (ASRock Full Spike Protection) - Supports Energy Efficient Ethernet 802.3az - Supports PXE	

Rear Panel I/O	- 1 x PS/2 Mouse/Keyboard Port - 1 x DVI-D Port - 1 x HDMI Port - 1 x Optical SPDIF Out Port - 1 x USB 2.0 Port (Supports ESD Protection (ASRock Full Spike Protection)) - 1 x Fatal1ty Mouse Port (USB 2.0) (Supports ESD Protection (ASRock Full Spike Protection)) - 5 x USB 3.0 Type-A Ports (Supports ESD Protection (ASRock Full Spike Protection)) - 1 x USB 3.0 Type-C Port (Supports ESD Protection (ASRock Full Spike 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	
Storage	- 6 x SATA3 6.0 Gb/s Connectors, support RAID (RAID 0, RAID 1, RAID 5, RAID 10, Intel Rapid Storage Technology 14 and Intel Smart Response Technology), NCQ, AHCI and Hot Plug - 2 x SATA Express 10 Gb/s Connectors* * Support to be announced * If M2_1 is occupied by a SATA-type M.2 device, SATA3_0 and the SATA function of SATA3_2_3 and SATA3_4_5 will be disabled. - 1 x Ultra M.2 Socket, supports type 2230/2242/2260/2280/22110 M.2 SATA3 6.0 Gb/s module and M.2 PCI Express module up to Gen3 x4 (32 Gb/s)** ** Supports NVMe SSD as boot disks ** Supports ASRock U.2 Kit	
Connector	- 1 x COM Port Header - 1 x TPM Header - 1 x Power LED and Speaker Header - 2 x CPU Fan Connectors (4-pin) (Smart Fan Speed Control) - 4 x Chassis Fan Connectors (4-pin) (Smart Fan Speed Control) - 1 x 24 pin ATX Power Connector - 1 x 8 pin 12V Power Connector - 1 x PCIe Power Connector - 1 x Front Panel Audio Connector - 2 x USB 2.0 Headers (Support 4 USB 2.0 ports) (Supports ESD Protection (ASRock Full Spike Protection)) - 1 x USB 3.0 Header (Supports 2 USB 3.0 ports) (Supports ESD Protection (ASRock Full Spike Protection))	
BIOS Feature	- 2 x 128Mb AMI UEFI Legal BIOS with multilingual GUI support (1 x Main BIOS and 1 x Backup BIOS) - Supports Secure Backup UEFI Technology - ACPI 5.0 Compliant wake up events - SMBIOS 2.7 Support - CPU, GT_CPU, DRAM, VPPM, PCH 1.0V, VCCIO, VCCPLL, VCCSA Voltage Multi-adjustment	
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), Google Chrome Browser and Toolbar, XSplit, Killer Network Manager	
Software and UEFI	Software - ASRock F-Stream - ASRock Disk Health Report - ASRock USB Key - ASRock Key Master - ASRock APP Charger - ASRock XFast RAM - ASRock Fast Boot (Fast Boot, Restart to UEFI) * These utilities can be downloaded from ASRock Live Update & APP Shop.	UEFI - ASRock EZ Mode - ASRock Full HD UEFI - ASRock My Favorites in UEFI - ASRock Instant Flash - ASRock Internet Flash - ASRock Crashless BIOS - ASRock OMG (Online Management Guard) - ASRock UEFI System Browser - ASRock UEFI Tech Service - ASRock Easy RAID Installer - ASRock Easy Driver Installer
Hardware Monitor	- CPU/Chassis temperature sensing - CPU/Chassis Fan Tachometer - CPU/Chassis Quiet Fan (Auto adjust chassis fan speed by CPU temperature) - CPU/Chassis Fan multi-speed control - Voltage monitoring: +12V, +5V, +3.3V, CPU Vcore, GT_CPU, DRAM, VPPM, PCH 1.0V, VCCIO, VCCSA	
OS	- Microsoft® Windows® 10 64-bit / 8.1 64-bit / 7 32-bit / 7 64-bit * To install Windows® 7 OS, a modified installation disk with xHCI drivers packed into the ISO file is required. Please check our User Manual for more detailed instructions. * For the updated Windows® 10 driver, please visit ASRock's website for details: http://www.asrock.com	
Certifications	- FCC, CE, WHQL - ErP/EuP ready (ErP/EuP ready power supply is required)	
Accessories	- Quick Installation Guide, Support CD, I/O Shield - 4 x SATA Data Cables - 1 x Screw for M.2 Socket	

Z170 GAMING K4

Intel® Z170 Chipset

ASRock

XXL
Aluminum Alloy Heatsink

Keeps everything cool for better stability.

Nichicon
12K Platinum Caps

Capacitors with a lifespan of at least 12000 hours.

I/O Armor

Protects the crucial parts near the rear I/O against static electricity.

ULTRA M.2 **32 Gb/s**

The PCIe Gen3 x4 Ultra M.2 interface pushes data transfer speeds up to 32Gb/s. In addition, it also supports SATA3 6Gb/s M.2 modules, and is compatible with ASRock's U.2 Kit for installing some of the world's fastest U.2 PCIe Gen3 x4 SSDs.

FATAL1TY MOUSE PORT

Choose your own preferred mouse polling rate from 125 Hz to 1000 Hz.

KILLER LAN

Killer™ E2400 Intelligent Networking Platform boosts networking performance for time-sensitive UDP (User Datagram Protocol) based applications, such as online games and high-quality media streaming.



Gaming

Other Tasks

10 POWER PHASE DESIGN

Reinforced system stability for taking on all sorts of arduous computing tasks.

SUPPORTS DDR4 3200+(OC)

Supports the latest DDR4 memory modules.

DIGI POWER

For smooth and efficient CPU Vcore voltage.

KEY MASTER

Key Master consists of two major features, Sniper Key and Macro Key. It enhances your mouse and keyboard with customizable macros, sniper modes, key repeat rates and repeat delay.

Sniper Key

Use Sniper Key to shift the mouse speed when you're in sniper mode, it will greatly sharpen your accuracy.

Mouse Track — Without Sniper Key With Sniper Key

Macro Key

Create your own set of keyboard hotkeys and macros with Macro Key to save the trouble.

USB TYPE-C ON THE REAR I/O

A Type-C USB 3.0 connector for delivering up to 5Gbps data transfer rates.

PURITY SOUND™ 3

7.1 CH HD audio with Realtek ALC1150 audio codec, Pure Power-In and other technologies to deliver the crispest sound effects.

Gaming Armor
Built to Kill

PCIe Power

Slots

Audio

Internet

Cooling