Z87 KILLER SERIES
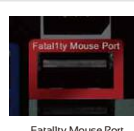
Intel® Z87 Chipset

FATAL1TY GAMING GEAR

Product Brief

- A-Style : Purity Sound, HDMI-In
- Gaming Armor
  CPU Power - Hi-Density Power Connector
  VGA Card - 15µ Gold Finger
           SLI/CrossFireX Power Connector
  Internet - Qualcomm® Atheros® Killer™ LAN
  Audio - Purity Sound
- Supports 4th Gen Intel® Core™ i7 / i5 / i3 / Xeon® / Pentium® / Celeron® in LGA1150 Package
- Premium Gold Capacitor Design, Digi Power, 8 Power Phase Design
- Supports Dual Channel DDR3 3050+(OC)
- 3 PCIe 3.0 x16, 4 PCIe 2.0 x1
- Supports AMD 3-Way CrossFireX, NVIDIA Quad SLI
- VGA Output/Input Options : D-Sub, DVI-D, HDMI-Out, HDMI-In
- 7.1 CH HD Audio with Content Protection (Realtek ALC1150 Audio Codec), Supports DTS Connect
- Qualcomm® Atheros® Killer™ E2200 Series Gigabit LAN
- Supports A-Style, F-Stream, Key Master, Easy Driver Installer, FAN-Tastic Tuning, USB Key
- 6 SATA3, 6 USB 3.0 (2 Front, 4 Rear), 8 USB 2.0 (4 Front, 3 Rear, 1 Fatal1ty Mouse Port)
- Free Bundle : XSplit 3 Months Premium License

Supports Intel inside™ CORE | Intel inside™ CHIPSET H87

Killer E2200 GAME NETWORKING

AMD CROSSFIRE TECHNOLOGY | nVIDIA SLI READY

Windows Ready 8

HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE

dts Connect

HDMI-In

Purity Sound™ 115dB SNR | HDMI-In | Key Master | Gaming Armor | XSplit GOING LIVE IS SIMPLE! | Fatal1ty Mouse Port | F-Stream | Premium Gold Caps | 8 Power Phase Design | Digi Power

Detail Specification

Platform	- ATX Form Factor - Premium Gold Capacitor design (100% Japan-made high-quality conductive polymer capacitors)
A-Style	- Purity Sound™ - HDMI-In
Gaming Armor	**CPU Power** - Hi-Density Power Connector **VGA Card** - 15µGold Finger in VGA PCIe Slot (PCIE2) - SLI/CrossFireX Power Connector **Internet** - Qualcomm® Atheros® Killer™ LAN **Audio** - Purity Sound™
CPU	- Supports 4th generation Intel® Core™ i7 / i5 / i3 / Xeon® / Pentium® / Celeron® in LGA1150 package - Digi Power design - 8 Power Phase design - Supports Intel® Turbo Boost 2.0 Technology - Supports Intel® K-Series unlocked CPUs - Supports ASRock BCLK Full-range Overclocking
Chipset	- Intel® Z87
Memory	- Dual Channel DDR3 Memory Technology - 4 x DDR3 DIMM Slots - Supports DDR3 3050+(OC)/2800(OC)/2400(OC)/2133(OC)/1866(OC)/1600/1333/1066 non-ECC, un-buffered memory - Max. capacity of system memory: 32GB - Supports Intel® Extreme Memory Profile (XMP) 1.3 / 1.2
Expansion Slot	- 3 x PCI Express 3.0 x16 Slots (PCIE2/PCIE5/PCIE7: single at x16 (PCIE2); dual at x8 (PCIE2) / x8 (PCIE5); triple at x8 (PCIE2) / x4 (PCIE5) / x4 (PCIE7)) - 4 x PCI Express 2.0 x1 Slots - Supports AMD Quad CrossFireX™, 3-Way CrossFireX™ and CrossFireX™ - Supports NVIDIA® Quad SLI™ and SLI™
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 4400/4600 - Pixel Shader 5.0, DirectX 11.1 - Max. shared memory 1792MB - Three VGA output options: D-Sub, DVI-D and HDMI Ports - Supports Triple Monitor - Supports HDMI Technology with max. resolution up to 4K × 2K (4096x2304) @ 24Hz - Supports DVI-D with max. resolution up to 1920x1200 @ 60Hz - Supports D-Sub 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 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 Purity Sound™
	  - 115dB SNR DAC with Differential Amplifier
	  - TI® NE5532 Premium Headset Amplifier (Supports up to 600 ohm headsets)
	  - Direct Drive Technology
	  - EMI Shielding Cover
	  - PCB Isolate Shielding
	- Supports DTS Connect

LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Qualcomm® Atheros® Killer™ E2200 Series - Supports Wake-On-LAN - Supports Energy Efficient Ethernet 802.3az - Supports PXE
Rear Panel I/O	- 1 x PS/2 Mouse/Keyboard Port - 1 x D-Sub Port - 1 x DVI-D Port - 1 x HDMI-Out Port - 1 x HDMI-In Port - 1 x Optical SPDIF Out Port - 3 x USB 2.0 Ports - 1 x Fatal1ty Mouse Port (USB 2.0) - 4 x USB 3.0 Ports - 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 12 and Intel Smart Response Technology), NCQ, AHCI and Hot Plug
Connector	- 1 x IR Header - 1 x COM Port Header - 1 x Power LED Header - 2 x CPU Fan Connectors (1 x 4-pin, 1 x 3-pin) - 3 x Chassis Fan Connectors (1 x 4-pin, 2 x 3-pin) - 1 x Power Fan Connector (3-pin) - 1 x 24 pin ATX Power Connector - 1 x 8 pin 12V Power Connector (Hi-Density Power Connector) - 1 x SLI/XFire Power Connector - 1 x Front Panel Audio Connector - 2 x USB 2.0 Headers (Support 4 USB 2.0 ports) - 1 x USB 3.0 Header (Supports 2 USB 3.0 ports)
BIOS Feature	- 2 x 64Mb AMI UEFI Legal BIOS with multilingual GUI support (1 x Main BIOS and 1 x Backup BIOS) - Supports Secure Backup UEFI Technology - ACPI 1.1 Compliant wake up events - SMBIOS 2.3.1 support - CPU, DRAM, PCH 1.05V, PCH 1.5V Voltage multi-adjustment
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), Google Chrome Browser and Toolbar, Start8 (30 days trial), XSplit, Killer Network Manager

Unique Feature	- ASRock F-Stream
	- ASRock Instant Flash
	- ASRock APP Charger
	- ASRock XFast USB
	- ASRock XFast RAM
	- ASRock Crashless BIOS
	- ASRock OMG (Online Management Guard)
	- ASRock Internet Flash
	- ASRock UEFI System Browser
	- ASRock UEFI Tech Service
	- ASRock Dehumidifier
	- ASRock Easy RAID Installer
	- ASRock Easy Driver Installer
	- ASRock Interactive UEFI
	- ASRock Fast Boot
	- ASRock Restart to UEFI
	- ASRock USB Key
	- ASRock Key Master
	- ASRock FAN-Tastic Tuning
	- Hybrid Booster:
	  - CPU Frequency Stepless Control
	  - ASRock U-COP
	  - Boot Failure Guard (B.F.G.)
	- Good Night LED

Hardware Monitor	- CPU/Chassis temperature sensing - CPU/Chassis/Power Fan Tachometer - CPU/Chassis Quiet Fan (Auto adjust fan speed by CPU temperature) - CPU/Chassis Fan multi-speed control - Voltage monitoring: +12V, +5V, +3.3V, CPU Vcore Voltage
OS	- Microsoft® Windows® 8.1 32-bit / 8.1 64-bit / 8 32-bit / 8 64-bit / 7 32-bit / 7 64-bit
Certifications	- FCC, CE, WHQL - ErP/EuP ready (ErP/EuP ready power supply is required)
Accessories	- 1 x ASRock SLI_Bridge_2S Card - Quick Installation Guide, Support CD, I/O Shield - 4 x SATA Data Cables

Killer E2200 GAME NETWORKING

No Lag, Just Frag!

5X Networking Performance

Fatal1ty ASRock Z87 Killer Series features the Killer™ E2200 Intelligent Networking Platform, which boosts networking performance up to 5X for time-sensitive UDP (User Datagram Protocol) based applications, such as online games and high-quality media streaming. Featuring Advanced Stream Detect™, Killer E2200 automatically detects and accelerates game traffic ahead of other network traffic for smoother, stutter-free in-game performance and the competitive edge. With this exclusive, automatic traffic prioritization, games and real-time chat get priority over low-level system chatter, giving you the lowest latency for game data on the most controllable network hardware available.

Lower Latency in Online Games

Latency lowered

LOL up to **136%**

Diablo3 up to **60%**

DOTA2 up to **47%**

Automatic Gaming Traffic Prioritization

Gaming

Killer E2200 GAME NETWORKING

Other Tasks

Purity Sound™
115dB SNR

Purity Sound™ is a combination of several hardware, software audio solutions and technologies that will satisfy even the pickiest audiophiles.

Purity Sound™ brings you:
- 115dB SNR
- Excellent Bass
- Less Sound Distortion
- More Details
- Supports up to 600ohm headphones

Purity Sound™
115dB SNR

Realtek ALC1150
Differential Output

TI NE5532
Direct Drive

115dB SNR Differential Codec

115dB SNR Differential Amplifier

HDMI-In

Connect your PC and another device to one monitor and toggle between the primary and secondary screen without replugging the connectors every time.
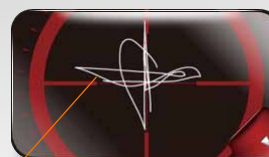
HDMI-In

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.
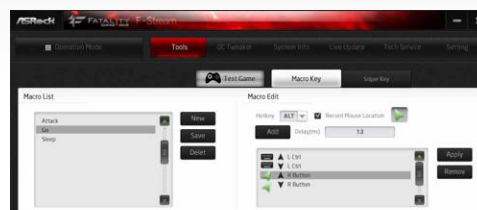
Mouse Track

Without Sniper Key

With Sniper Key

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

Gaming Armor
Built to Kill

FATAL1TY GAMING ARMOR EQUIPPED

CPU Power

Hi-Density Power Connector
Hi-Density Power Connectors can reduce 23% power loss and decrease the power connector's temperature up to 22℃.

VGA

15µ Gold Finger
This motherboard uses 15µ gold components within the VGA PCIe slot for delivering triple performance than usual.

SLI/CrossFireX Power Connector
The additional four pin SLI/CrossFireX Power Connector provides more juice and stability for graphics cards.

Internet

Qualcomm® Atheros® Killer™ LAN
Identify and accelerate traffic to your game, Killer LAN delivers fast networking with a new level of online gaming performance.
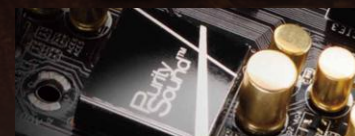
Killer E2200 GAME NETWORKING

Audio

Purity Sound™
Purity Sound™ is a combination of several hardware, software audio solutions and technologies that will satisfy even the pickiest audiophiles.
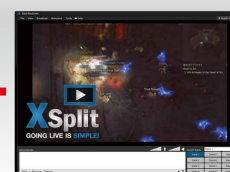
XSplit
GOING LIVE IS SIMPLE!

XSplit Broadcaster is a desktop application designed to make your multimedia broadcasting, live-streaming and recording a lot easier and more fun. We are giving the 3 month premium license for FREE! A US$24.95 value!
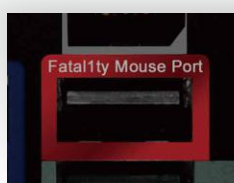
twitch + XSplit GOING LIVE IS SIMPLE! =

Broadcast Platform   Broadcast Software   Broadcasting!

Fatal1ty Mouse Port

After plugging a USB mouse into the Fatal1ty Mouse Port and running F-Stream, gamers can choose their own preferred mouse polling rate from 125 Hz to 1000 Hz.

F-Stream

F-Stream is Fatal1ty's multi purpose software suite with a new interface, more new features and improved utilities, including OC Tweaker and a whole lot more.

Premium Gold Caps

Premium Gold Caps are 100% made in Japan; these solid capacitors are sleek, high gloss caps with a premium gold coating representing long life and stable performance.

8 Power Phase Design

Designed with an 8 Power Phase Design, this motherboard features sturdy components and completely smooth power delivery to the CPU. Plus, it offers unmatched overclocking capabilities and enhanced performance with the lowest temperature for advanced gamers as well.

Digi Power

By adopting digital Pulse-width modulation (PWM), the ASRock motherboard can provide CPU Vcore voltage more efficiently and smoothly.

4K/2K

4K is a new standard for display resolutions with a minimum of 3840 x 2160 pixels, which is twice the horizontal and vertical resolution of the 1080p format and four times as many pixels overall.

Triple Monitor

This motherboard supports Triple Monitor. You may choose up to three display interfaces to connect monitors and use them simultaneously.

DTS Connect is a blanket name for a two-part system, including DTS Interactive and DTS Neo:PC, it is used on the computer platform only, in order to convert PC audio into the DTS format.

FAN-Tastic Tuning

Configure different fan speeds for respective temperatures using the graph. The fans will automatically shift to the next speed level when the assigned temperature is met.

Easy Driver Installer

For users that don't have an optical disk drive to install the drivers from our support CD, Easy Driver Installer is a handy tool in the UEFI that installs the LAN driver to your system via an USB storage device, then downloads and installs the other required drivers automatically.

UEFI Tech Service

Contact ASRock Tech Service by sending a support request form from the UEFI setup utility if you are having trouble with your PC.

USB Key

Just plug in the USB Key and let your computer log in to windows automatically without having to type your username and password!

Fast Boot

With ASRock's exclusive Fast Boot technology, it takes less than 1.5 seconds* to logon to Windows 8 from a cold boot. No more waiting! The speedy boot will completely change your user experience and behavior.
*The boot time may vary with a different configuration.

OMG

ASRock OMG technology allows you to establish an internet curfew or restrict internet access at specified times. Administrators are able to schedule the starting and ending hours of internet access granted to other users.

Restart to UEFI

ASRock "Restart to UEFI" technology is designed for those requiring frequent UEFI access. It allows users to easily enter the UEFI SETUP automatically when turning on the PC next time.

Dehumidifier

Users may prevent motherboard damages due to dampness by enabling "Dehumidifier Function". When enabling Dehumidifier Function, the computer will power on automatically to dehumidify the system after entering S4/S5 state.

XFast RAM
Fully Optimize Memory Usage

XFast RAM will create a virtual disk from the system memory to boost the performance. For Photoshop, it can even perform 5X faster than before.

XFast USB
Boosts up your USB speed

XFast USB technology offers the world's fastest transfer speed. It boosts up USB speed up to 5 times faster, making daily tasks more efficiently.