Z77 Performance
Intel® Z77 Chipset

FATAL1TY

ASRock®
www.asrock.com

Compatible with Windows®7

intel® CHIPSET Z77 inside

Supports intel® inside CORE

ATI CROSS FIRE X™ TECHNOLOGY

Detail Specification

Platform	- ATX Form Factor: 12.0-in x 9.6-in, 30.5 cm x 24.4 cm - ASRock DuraCaps (100% Japan-made high-quality Conductive Polymer Capacitors)
CPU	- Supports 3rd and 2nd Generation Intel® Core™ i7 / i5 / i3 in LGA1155 Package - Digi Power Design - 8 + 4 Power Phase Design - Supports Intel® Turbo Boost 2.0 Technology - Supports Intel® K-Series unlocked CPU - Supports Hyper-Threading Technology
Chipset	- Intel® Z77 - Supports Intel® Rapid Start Technology and Smart Connect Technology
Memory	- Dual Channel DDR3 memory technology - 4 x DDR3 DIMM slots - Supports DDR3 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	- 1 x PCI Express 3.0 x16 slot (PCIE1: x16 mode) * PCIE 3.0 is only supported with Intel® Ivy Bridge CPU. With Intel® Sandy Bridge CPU, it only supports PCIE 2.0. - 1 x PCI Express 2.0 x16 slot (PCIE3: x4 mode) - 1 x PCI Express 2.0 x1 slot - 2 x PCI slots - Supports AMD Quad CrossFireX™ and CrossFireX™
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 2.0, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® Insider™, Intel® HD Graphics 2500/4000. - Pixel Shader 5.0, DirectX 11 with Intel® Ivy Bridge CPU. Pixel Shader 4.1, DirectX 10.1 with Intel® Sandy Bridge CPU. - Max. shared memory 1760MB - Three VGA Output options: D-Sub, DVI-D and HDMI - Supports HDMI 1.4a Technology with max. resolution up to 1920x1200 @ 60Hz - Supports DVI with max. resolution up to 1920x1200 @ 60Hz - Supports D-Sub with max. resolution up to 2048x1536 @ 75Hz - Supports Auto Lip Sync, Deep Color (12bpc), xvYCC and HBR (High Bit Rate Audio) with HDMI (Compliant HDMI monitor is required) - Supports HDCP function with DVI and HDMI ports - Supports Full HD 1080p Blu-ray (BD) / HD-DVD playback with DVI and HDMI ports
Audio	- 7.1 CH HD Audio with Content Protection (Realtek ALC892 Audio Codec) - Premium Blu-ray audio support - Supports THX TruStudio
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Broadcom BCM57781 - Supports Wake-On-LAN - Supports Energy Efficient Ethernet 802.3az - Supports PXE
Rear Panel I/O	I/O Panel - 1 x PS/2 Keyboard Port - 1 x D-Sub Port - 1 x DVI-D Port - 1 x HDMI Port - 1 x Optical SPDIF Out Port - 3 x Ready-to-Use USB 2.0 Ports - 1 x Fatal1ty Mouse Port (USB 2.0) - 1 x eSATA2 Connector - 4 x Ready-to-Use USB 3.0 Ports - 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED) - 1 x Clear CMOS Switch with LED - HD Audio Jack: Rear Speaker / Central / Bass / Line in / Front Speaker / Microphone
SATA3	- 2 x SATA3 6.0 Gb/s connectors, support RAID (RAID 0, RAID 1, RAID 5, RAID 10, Intel Rapid Storage and Intel Smart Response Technology), NCQ, AHCI and "Hot Plug" functions
USB 3.0	- 2 x Rear USB 3.0 ports by Intel® Z77, support USB 1.0/2.0/3.0 up to 5Gb/s - 2 x Rear USB 3.0 ports by Etron EJ168A, support USB 1.0/2.0/3.0 up to 5Gb/s - 1 x Front USB 3.0 header by Intel® Z77 (supports 2 USB 3.0 ports), supports USB 1.0/2.0/3.0 up to 5Gb/s
Connector	- 4 x SATA2 3.0 Gb/s connectors, support RAID (RAID 0, RAID 1, RAID 5, RAID 10, Intel Rapid Storage and Intel Smart Response Technology), NCQ, AHCI and Hot Plug functions (SATA2_3 connector is shared with eSATA2 port) - 2 x SATA3 6.0 Gb/s connectors - 1 x IR header - 1 x COM port header - 1 x HDMI_SPDIF header - 1 x Power LED header - CPU/Chassis/Power FAN connector - 24 pin ATX power connector - 8 pin 12V power connector - Front panel audio connector - 3 x USB 2.0 headers (support 6 USB 2.0 ports) - 1 x USB 3.0 header (supports 2 USB 3.0 ports) - 1 x Dr. Debug with LED
Smart Switch	- 1 x Power Switch with LED - 1 x Reset Switch with LED - 1 x Clear CMOS Switch with LED
BIOS Feature	- 64Mb AMI UEFI Legal BIOS with GUI support - Supports "Plug and Play" - ACPI 1.1 Compliance Wake Up Events - Supports jumperfree - SMBIOS 2.3.1 Support - CPU Core, IGPU, DRAM, 1.8V PLL, VTT, VCCSA Voltage Multi-adjustment
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), CyberLink MediaEspresso 6.5 Trial, ASRock MAGIX Multimedia Suite - OEM

Unique Feature	- F-Stream
	- ASRock Instant Boot
	- ASRock Instant Flash
	- ASRock APP Charger
	- ASRock SmartView
	- ASRock XFast USB
	- ASRock XFast LAN
	- ASRock XFast RAM
	- ASRock Crashless BIOS
	- Lucid Virtu Universal MVP
	  Lucid Virtu Universal MVP can be supported only with processors which are GPU integrated.
	- ASRock On/Off Play Technology
	- Hybrid Booster:
	  - CPU Frequency Stepless Control
	  - ASRock U-COP
	  - Boot Failure Guard (B.F.G.)
	- Combo Cooler Option (C.C.O.)
	- Good Night LED

Hardware Monitor	- CPU Temperature Sensing - Chassis Temperature Sensing - CPU/Chassis/Power Fan Tachometer - CPU/Chassis Quiet Fan (Allow Chassis Fan Speed Auto-Adjust by CPU Temperature) - CPU/Chassis Fan Multi-Speed Control - Voltage Monitoring: +12V, +5V, +3.3V, CPU Vcore
OS	- Microsoft® Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit compliant
Certifications	- FCC, CE, WHQL - ErP/EuP Ready (ErP/EuP ready power supply is required)
Accessories	- Quick Installation Guide, Support CD, I/O Shield - 2 x SATA Data Cables (Optional)

Product Brief

- ASRock DuraCaps
- Digi Power Design, 8 + 4 Power Phase Design
- Supports Dual Channel DDR3 2800+(OC)
- 1 x PCIe 3.0 x16 Slot, Supports AMD Quad CrossFireX™, CrossFireX™
- Supports Broadcom Gigabit LAN
- Supports Intel® HD Graphics with Built-in Visuals
- Multi-VGA Output Options : D-Sub, DVI-D, HDMI
- Combo Cooler Option (C.C.O.)
- 7.1 CH HD Audio with Content Protection (Realtek ALC892 Audio Codec), Supports THX TruStudio™
- Supports ASRock XFast RAM, XFast LAN, XFast USB, On/Off Play, UEFI System Browser
- Supports Fatal1ty F-Stream, Fatal1ty Mouse Port
- Supports Intel Smart Connect, Intel Rapid Start, Lucid Virtu Universal MVP
- Free Bundle : CyberLink MediaEspresso 6.5 Trial, ASRock MAGIX Multimedia Suite

Digi Power RAM Design

Fatal1ty Mouse Port

PCI-E 3.0

Intel HD Graphics

VIRTU MVP Universal.GPU.Virtualization by Lucid

On/Off Play

THX TruStudio

SYSTEM BROWSER

Intel® Smart Connect Technology

Intel® Rapid Start Technology

555 XFast

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5 5 5
XFast

5X LAN SPEED
XFast LAN

XFast RAM
5x SYSTEM SPEED

XFast USB
5x USB SPEED
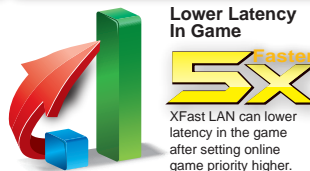
XFast RAM
Fully Optimize Memory Usage

Photoshop **5X** Faster

5X Faster for Photoshop Execution

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.
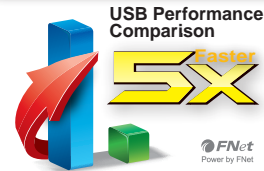
XFast LAN
Faster Internet Access

Lower Latency In Game

5X Faster

XFast LAN can lower latency in the game after setting online game priority higher.

Time latency in World of Warcraft: Cataclysm
*Lower is better
- ASRock Motherboard with XFast LAN
- Other Motherboard without XFast LAN

XFast USB
Boosts up your USB speed

USB Performance Comparison

5X Faster

FNet
Power by FNet

ATTO Disk Benchmark 4K Read
- ASRock Motherboard with XFast USB
- Other Motherboard without XFast USB

● The performance boost percentage may vary with a different configuration.

Virtu Universal MVP - Uncompromised Game Response Performance

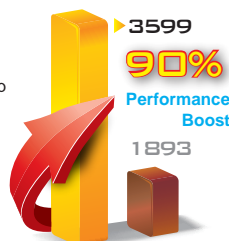VIRTU MVP
Universal.GPU.Virtualization
by Lucid
MVP

1. HyperFormance™ :

A new technology which combines integrated and discrete graphics for uncompromised performance and get up to a 90% performance boost!

- Virtu HyperFormance ON (discrete VGA+ integrated VGA)
- Virtu HyperFormance OFF (discrete VGA only)

3DMark11 (Extreme 1080p) - Graphics Score

▶3599
90%
Performance Boost
1893

3. Switchable Graphics :

Dynamically assigns tasks to the best graphics resource regardless of physical cable connections.

VIRTU MVP
Universal.GPU.Virtualization
by Lucid

2. Virtual Vsync :

A technology designed to solve the ever lasting debate between quality and performance. Bring GPU performance from 60 FPS Vsync limit back to its maximum while keeping Vsync image quality and no tearing.

Before Virtual Vsync: TEARING ARTIFACT OR FPS LIMIT

After Virtual Vsync: NO TEARING

Intel Smart Connect Technology

Intel Smart Connect Technology keeps content continuously updated while the PC is asleep! It will periodically wake up the PC while in a sleep state and check updates for things like email, Twitter, Facebook, etc.

Intel Rapid Start Technology

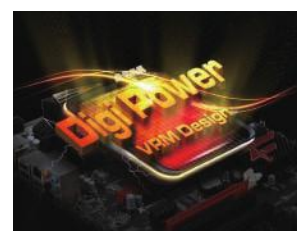Quickly return to where you left off with a PC that goes from deep-sleep to full awake in a flash.

ASRock DuraCaps

All the capacitors on this board are built with 100% all solid capacitors. With these solid caps, ASRock motherboard is allowed to perform more stably and ensure longer lifetime.

Digi Power

By adopting digital Pulse-width modulation (PWM), the Z77 motherboard can provide CPU Vcore voltage more efficiently and smoothly.

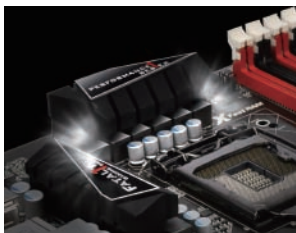FATAL1TY   ASRock®   www.asrock.com

8 + 4 Power Phase Design

To improve CPU power solution, this board is designed with the advanced 8 + 4 power phase design which signatures tough components and smooth power delivery to the CPU.

4 x DDR3 2800+ (OC)

Fatal1ty 7-Series motherboards unlock maximum memory performance, coming with 4 DIMM slots for dual-channel memory, supporting up to DDR3 2800+(OC) MHz!

F-Stream

The Fatal1ty F-Stream tuning program is an all-in-1 software utility that supports overclocking and hardware tuning such as energy usage, H/W monitor, fan speed control , Fatal1ty Mouse Port Configuration and XFast RAM.

Fatal1ty Mouse Port

Fatal1ty Mouse Port is a customizable technology for PC gamers and part of F-Stream. After plugging a USB mouse into the Fatal1ty Mouse Port and running F-Stream, gamers can use Fatal1ty's personally preferred mouse polling rate at 500 Hz. F-Stream also provides flexibility for gamers to adjust the mouse polling rate from 125 Hz to 1000 Hz, which helps professional gamers experience smoother gameplay and a faster mouse response time.

Next-Gen PCIe 3.0

- Higher bit rate - 8.0GT/s
- Higher bandwidth per lane - 1GB/s
- Higher efficiency - 98.5% encoding efficiency
- 100% backward compatible with previous PCI-E 2.0 / 1.0 standard

  Note: Supported with 3rd Gen Intel Core Processor

Intel HD Graphics

Intel® HD Graphics, simplifies your designs by eliminating additional discrete graphics hardware, while integrating stunning visuals and performance for immersive gaming.

Intel® Quick Sync Video   Intel® InTru™ 3D   Intel® Clear Video HD Technology

Intel® Insider™   Intel® HD Graphics 2500/4000

On/Off Play

Enjoy great audio experience from the portable audio devices via PC speaker even when the system is powered off.

THX TruStudio™

THX TruStudio is specially designed to bring the same great audio experience found in live performances, films, and recording studios to the PC.

UEFI System Browser

The UEFI system browser can let you easily check your current system configuration in UEFI setup.

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