

Z77 Professional

Intel® Z77 Chipset

FATAL1TY

ASRock®
www.asrock.com



Product Brief

- Premium Gold Caps
- Digi Power Design, 16 + 8 Power Phase Design
- Supports Dual Channel DDR3 2800+(OC)
- 2 x PCIe 3.0 x16 Slots, Supports AMD Quad CrossFireX™, 3-Way CrossFireX, CrossFireX™ and NVIDIA Quad SLI™, SLI™
- Supports Broadcom Dual PCIE GLAN with Teaming function
- Supports Intel® HD Graphics with Built-in Visuals
- Dual-VGA Output Options : HDMI, DisplayPort
- Combo Cooler Option (C.C.O.)
- 7.1 CH HD Audio with Content Protection (Realtek ALC898 Audio Codec), Supports THX TruStudio™
- Supports ASRock XFast RAM, XFast LAN, XFast USB, UEFI System Browser
- Supports Fatal1ty F-Stream, Fatal1ty Mouse Port
- Supports Intel Smart Connect, Intel Rapid Start, Lucid Virtu Universal MVP
- Free Bundle : 1 x Front USB 3.0 Panel, 1 x Rear USB 3.0 Bracket, CyberLink MediaEspresso 6.5 Trial, ASRock MAGIX Multimedia Suite

Detail Specification

Platform	- ATX Form Factor: 12.0-in x 9.6-in, 30.5 cm x 24.4 cm - Premium Gold Capacitor design (100% Japan-made high-quality Conductive Polymer Capacitors)
CPU	- Supports 3 rd and 2 nd Generation Intel® Core™ i7 / i5 / i3 in LGA1155 Package - Digi Power Design - 16 + 8 Power Phase Design - Supports Intel® Turbo Boost 2.0 Technology - Supports Intel® K-Series unlocked CPU - Supports Hyper-Threading Technology - Supports Intel® Rapid Start Technology and Smart Connect Technology with Intel® Ivy Bridge CPU
Chipset	- Intel® Z77
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	- 2 x PCI Express 3.0 x16 slots (PCIe2/PCIe4: single at x16 (PCIe2) / x8 (PCIe4) or dual at x8/x8 mode) - * PCIe 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 (PCIe5: x4 mode) - 2 x PCI Express 2.0 x1 slots - 2 x PCI 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 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 4.01, DirectX 10.1 with Intel® Sandy Bridge CPU. - Max. shared memory 160MB - Dual VGA Output: support HDMI and DisplayPort ports by independent display controllers - Supports HDMI 1.4a Technology with max. resolution up to 1920x1200 @ 60Hz - Supports DisplayPort with max. resolution up to 2560x1600 @ 60Hz - Supports Auto Lip Sync, Deep Color (12bpc), xvCC and HBR (High Bit Rate Audio) with HDMI (Compliant HDMI monitor is required) - Supports HDCP function with HDMI and DisplayPort ports - Supports Full HD 1080p Blu-ray (BD) / HD-DVD playback with HDMI and DisplayPort ports
Audio	- 7.1 CH HD Audio with Content Protection (Realtek ALC898 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 Dual LAN with Teaming function - Supports PXE
Rear Panel I/O	I/O Panel - 1 x PS/2 Keyboard/Mouse Port - 1 x HDMI Port - 1 x DisplayPort - 1 x Optical SPDIF Out Port - 5 x Ready-to-Use USB 2.0 Ports - 1 x Fatal1ty Mouse Port (USB 2.0) - 1 x eSATA3 Connector - 6 x Ready-to-Use USB 3.0 Ports - 2 x RJ-45 LAN ports with LED (ACT/LINK LED and SPEED LED) - 1 x IEEE 1394 Port - 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 by Intel® Z77, support RAID (RAID 0, RAID 1, RAID 5, RAID 10, Intel Rapid Storage and Intel Smart Response Technology), NCQ, AHCI and "Hot Plug" functions - 4 x SATA3 6.0 Gb/s connectors by ASMedia ASM1061, support NCQ, AHCI and "Hot Plug" functions (SATA3_A4 connector is shared with eSATA3 port)
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 - 4 x Rear USB 3.0 ports by Etron EJ188H, 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 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 - 6 x SATA3 6.0 Gb/s connectors - 1 x ATA133 IDE connector (supports 2 x IDE devices) - 1 x Floppy connector - 1 x IR header - 1 x COM port header - 1 x HDMI SPDIF header - 1 x IEEE 1394 header - 1 x Power LED header - CPU/Chassis/Power FAN connector - 24 pin ATX power connector - 8 pin 12V power connector - CD in header - 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) - 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. - Hybrid Booster: <ul style="list-style-type: none">- CPU Frequency Steppless 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	- 1 x ASRock SLI_Bridge_2S Card - Quick Installation Guide, Support CD, I/O Shield - 6 x SATA Data Cables (Optional) - 2 x SATA 1 to 1 Power Cables (Optional) - 1 x Front USB 3.0 Panel - 4 x HDD Screws - 6 x Chassis Screws - 1 x Rear USB 3.0 Bracket

The specification is subject to change without notice.
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Any configuration other than original product specification is not guaranteed.

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XFast RAM
Fully Optimize Memory Usage

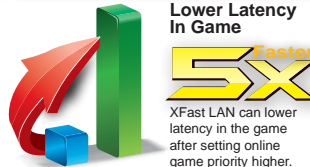
Photoshop
Faster
5X

5X Faster for Photoshop Execution

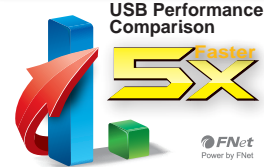
XFast RAM will create a virtual disk from the system memory to boost the performance for Photoshop. It can even perform 5X faster than before.

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

XFast LAN
Faster Internet Access



XFast USB
Boosts up your USB speed



Virtu Universal MVP - Uncompromised Game Response Performance

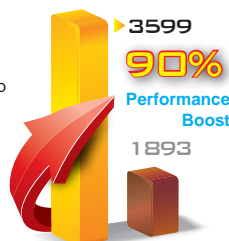


1. HyperFormance™ :

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



3. Switchable Graphics :

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



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.



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.



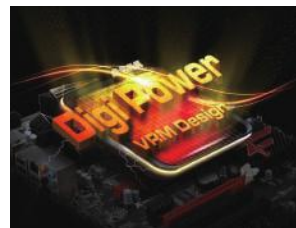
Premium Gold Caps

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.



Digi Power

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



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16 + 8 Power Phase Design

To improve CPU power solution, this board is designed with the advanced 16 + 8 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



Dual LAN with Teaming Function

Dual LAN with Teaming function enabled on this motherboard allows two single connections to act as one single connection for twice the transmission bandwidth, making data transmission more effective.



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.



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.



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.

