

Z77M

Intel® Z77 Chipset

ASRock
www.asrock.com



Product Brief

- 100% All Solid Capacitor Design
- Digi Power Design
- Supports Dual Channel DDR3 2800+(OC)
- 1 x PCIe 3.0 x16 Slot, Supports AMD Quad CrossFireX™ and CrossFireX™
- PCIe Gigabit LAN
- Supports Intel® HD Graphics with Built-in Visuals
- Multi-VGA Output Options : DVI-D, D-Sub, 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, Dehumidifier, OMG, On/Off Play, UEFI System Browser
- Supports Intel Smart Connect, Intel Rapid Start
- Free Bundle : CyberLink MediaEspresso 6.5 Trial, ASRock MAGIX Multimedia Suite

Detail Specification

Platform	- Micro ATX Form Factor: 9.6-in x 8.5-in, 24.4 cm x 21.6 cm - All Solid Capacitor design
CPU	- Supports 3 rd and 2 nd Generation Intel® Core™ i7 / i5 / i3 in LGA1155 Package - Digi Power Design - 4 + 2 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 - Supports DDR3 2800+(OC)/2400(OC)/2133(OC)/1866(OC)/1600/1333/1066 non-ECC, un-buffered memory - Max. capacity of system memory: 16GB - Supports Intel® Extreme Memory Profile (XMP) 1.3 / 1.2
Expansion Slot	- 1 x PCI Express 3.0 x16 slot (PCI-E1: 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 (PCI-E2: x4 mode) - 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 - Realtek RTL8111E - Supports Wake-On-LAN - Supports LAN Cable Detection - 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 - 6 x Ready-to-Use USB 2.0 Ports - 2 x Ready-to-Use USB 3.0 Ports - 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED 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, support USB 1.0/2.0/3.0 up to 5Gb/s - 1 x Front USB 3.0 header (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 - 2 x SATA3 6.0 Gb/s connectors - 1 x IR header - 1 x CIR header - 1 x Print Port header - 1 x COM port header - 1 x HDMI SPDIF header - 2 x CPU Fan connectors (1 x 4-pin, 1 x 3-pin) - 2 x Chassis Fan connectors (1 x 4-pin, 1 x 3-pin) - 1 x Power Fan connector (3-pin) - 24 pin ATX power connector - 8 pin 12V power connector - 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	- 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	- ASRock Extreme Tuning Utility (AXTU) - ASRock Instant Boot - ASRock Instant Flash - ASRock APP Charger - ASRock SmartView - ASRock XFast USB - ASRock XFast LAN - ASRock XFast RAM - ASRock Crashless BIOS - ASRock OMG (Online Management Guard) - ASRock Internet Flash - ASRock UEFI System Browser - ASRock On/Off Play Technology - ASRock Dehumidifier Function - Hybrid Booster: - 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	- Quick Installation Guide, Support CD, I/O Shield - 2 x SATA Data Cables

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XFast RAM
Fully Optimize Memory Usage

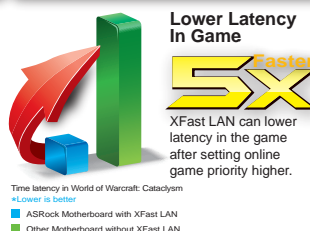
Photoshop
Faster
5X

5X Faster for Photoshop Execution

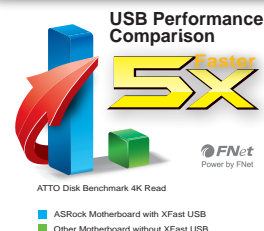
XFast RAM will create a virtual disk from the system memory to boost the performance. For Photoshop, it can even perform 5X faster than before.

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

XFast LAN
Faster Internet Access



XFast USB
Boosts up your USB speed



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.



Digi Power

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



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



ASRock 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.



ASRock OMG (Online Management Guard)

Fast, Easy and Free - 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.



Intel HD Graphics

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



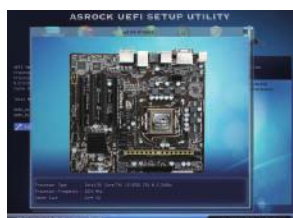
THX TruStudio

Delivering the fullest audio experience for games, music and movies.



UEFI System Browser

UEFI system browser is a useful tool included in graphical UEFI. It can detect the devices and configurations that users are currently using in their PC.



On/Off Play

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



Cyberlink MediaEspresso 6.5 Trial

The fastest video media conversation software



MAGIX Multimedia Suite

The ultimate solutions to enhance your media experience. From music management, music creation, video editing to photo management. Simply do more with your media than you ever thought possible.

