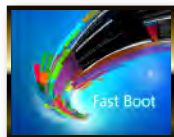


# Z77 Extreme11

Intel® Z77 Chipset

**ASRock**  
www.asrock.com



## Product Brief

- 8 SAS2/SATA3 from LSI™ SAS 2308 PCIe 3.0 x8 Controller
- 3-Way SLI & 4-Way CrossFireX supported by PLX 8747 bridge
- Premium Gold Caps, Digi Power Design, 8 + 4 Power Phase Design, Dual-Stack MOSFET
- Supports Dual Channel DDR3 3000+(OC)
- 3 x PCIe 3.0 x16 Slots, 1 x PCIe 2.0 x16 Slot, 1 x mini-PCI Express slot
- Intel PCIe Dual Gigabit LAN with Teaming Function
- 12 USB 3.0 (4 Front, 8 Rear) + 10 SATA3 (includes 8 SAS2/SATA3)
- 7.1 CH HD Audio with Content Protection (Realtek ALC898 Audio Codec), Supports THX TruStudio™
- Supports ASRock XFast 555, Fast Boot, Restart to UEFI, Dehumidifier, OMG, Interactive UEFI
- Supports Intel Smart Connect, Intel Rapid Start, Lucid Virtu Universal MVP
- Free Bundle : 1 x WiFi + BT Module, 1 x ASRock Wi-SB BOX, MediaEspresso 6.5 Trial, ASRock MAGIX Multimedia Suite, Google Chrome and Toolbar

## Detail Specification

<b>Platform</b>	- E-ATX Form Factor: 12.0-in x 10.5-in, 30.5 cm x 26.7 cm - 2oz copper PCB - Premium Gold Capacitor design (100% Japan-made high-quality Conductive Polymer Capacitors)
<b>CPU</b>	- Supports 3 <sup>rd</sup> and 2 <sup>nd</sup> Generation Intel® Core™ i7 / i5 / i3 in LGA1155 Package - Digi Power Design - Dual-Stack MOSFET (DSM) - Supports Intel® Turbo Boost 2.0 Technology - Supports Intel® K-Series unlocked CPU - Supports Hyper-Threading Technology
<b>Chipset</b>	- Intel® Z77 - Supports Intel® Rapid Start Technology and Smart Connect Technology
<b>Memory</b>	- Dual Channel DDR3 memory technology - 4 x DDR3 DIMM slots - Supports DDR3 3000+(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
<b>Expansion Slot</b>	- 3 x PCI Express 3.0 x16 slots (PCI-E1: x16 mode; or PCI-E/P/PCI-E3/PCI-E5: x8/8/8 mode) - * PCI-E 3.0 is only supported with Intel® Ivy Bridge CPU. With Intel® Sandy Bridge CPU, it only supports PCI-E 2.0. - 1 x PCI Express 2.0 x16 slot (PCI-E7: x4 mode) - 3 x PCI Express 2.0 x1 slot - 1 x mini-PCI Express slot: For WiFi + BT module - PLX PEX 8747 and PLX PEX 8608 embedded - Supports AMD Quad CrossFireX™ 4-Way CrossFireX™, 3-Way CrossFire™ and CrossFire™ - Supports NVIDIA® Quad SLI™, 3-Way SLI™ and SLI™
<b>Graphics</b>	- * 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 with Intel® Ivy Bridge CPU - Supports Intel® HD Graphics Built-in Visuals: Intel® Quick Sync Video, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® HD Graphics 2000/3000, Intel® Advanced Vector Extensions (AVX) with Intel® Sandy Bridge CPU - 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 with Intel® Ivy Bridge CPU, Max. shared memory 1759MB with Intel® Sandy Bridge CPU - Supports HDMI 1.4a Technology with max. resolution up to 1920x1200 @ 60Hz - Supports Auto Lip Sync, Deep Color (12bpc), xvYCC and HBR (High Bit Rate Audio) with HDMI - Supports HDCP with HDMI - Supports Full HD 1080p Blu-ray (BD) / HD-DVD playback with HDMI
<b>Audio</b>	- 7.1 CH HD Audio with Content Protection (Realtek ALC898 Audio Codec) - Premium Blu-ray audio support - Supports THX TruStudio™
<b>LAN</b>	- 2 x PCIe x1 Gigabit LAN 10/100/1000 Mbps - Intel 82579V - Supports Wake-On-LAN - Supports Dual LAN with Teaming function - Supports PXE
<b>Wireless LAN</b>	- WiFi + BT module - Supports IEEE 802.11a/b/g/n - Supports Dual-Band (2.4/5 GHz) - Supports High speed wireless connection up to 300Mbps - 2 antennas to support 2 (Transmit) x 2 (Receive) MIMO technology - Supports Bluetooth 4.0 Class II
<b>Rear Panel I/O</b>	- I/O Panel - 1 x PS/2 Mouse/Keyboard Port - 1 x HDMI Port - 1 x Optical SPDIF Out Port - 2 x Ready-to-Use USB 2.0 Ports - 1 x eSATA3 Connector - 8 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 Jacks: Rear Speaker / Central / Bass / Line In / Front Speaker / Microphone
<b>SAS2/SATA3</b>	- 2 x SATA3 6.0 Gb/s connectors by Intel® Z77, support RAID (RAID 0, RAID 1, RAID 10, RAID 5, Intel Rapid Storage and Intel Smart Response Technology), NCQ, AHCI and Hot Plug - 8 x SAS2/SATA3 6.0 Gb/s connectors by LSI SAS2308 PCIe 3.0 x8 controller, support RAID (RAID 0, RAID 1, RAID 1E and RAID 10), MegaRAID Utility, NCQ and Hot Plug
<b>USB 3.0</b>	- 4 x Rear USB 3.0 ports by Intel® Z77, support USB 1.1/2.0/3.0 up to 5Gb/s - 4 x Rear USB 3.0 ports by Etron EJ188, support USB 1.1/2.0/3.0 up to 5Gb/s - 2 x Front USB 3.0 headers by Etron EJ188 (support 4 USB 3.0 ports), support USB 1.1/2.0/3.0 up to 5Gb/s
<b>Connector</b>	- 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 - 2 x SATA3 6.0 Gb/s connectors - 8 x SAS2/SATA3 6.0 Gb/s connectors - 1 x IR header - 1 x CIR header - 1 x COM port header - 1 x HDMI_SPDIF header - 1 x IEEE 1394 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 SB Fan connector (3-pin) - 24 pin ATX power connector - 8 pin 12V power connector - SLIXFire power connector - Front panel audio connector - 3 x USB 2.0 headers (support 6 USB 2.0 ports) - 1 x Vertical Type A USB - 2 x USB 3.0 headers (support 4 USB 3.0 ports) - 1 x Dr. Debug with LED - 1 x Power Switch with LED - 1 x Reset Switch with LED - 1 x Clear CMOS Switch with LED
<b>BIOS Feature</b>	- 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
<b>Support CD</b>	- Drivers, Utilities, AntiVirus Software (Trial Version), CyberLink MediaEspresso 6.5 Trial, ASRock MAGIX Multimedia Suite - OEM, Google Chrome Browser and Toolbar
<b>Unique Feature</b>	- ASRock Extreme Tuning Utility (AXTU) - ASRock Instant Boot - ASRock Instant Flash - ASRock APP Charger - ASRock XFast USB - ASRock XFast LAN - ASRock XFast RAM - ASRock X-FAN - ASRock Crashless BIOS - ASRock OMG (Online Management Guard) - ASRock Internet Flash - ASRock UEFI System Browser - ASRock Dehumidifier Function - Lucid Virtu Universal MVP * Lucid Virtu Universal MVP can be supported only with processors which are GPU integrated. - ASRock Interactive UEFI - ASRock Easy RAID Installer - ASRock Fast Boot - ASRock Restart to UEFI - Hybrid Booster: - CPU Frequency Steppless Control - ASRock U-COP - Boot Failure Guard (B.F.G.) - Good Night LED
<b>Hardware Monitor</b>	- CPU/Chassis/SB Temperature Sensing - CPU/Chassis/Power/SB 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
<b>OS</b>	- Microsoft® Windows® 8 / 8.64-bit / 7 / 7.64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit compliant
<b>Certifications</b>	- FCC, CE, WHQL - ErP/EuP Ready (ErP/EuP ready power supply is required)
<b>Accessories</b>	- 1 x ASRock SLI_Bridge_3S Card - 1 x ASRock 3-Way SLI Bridge Card - Quick Installation Guide, Support CD, I/O Shield - 8 x SATA Data Cables - 2 x SATA 1 to 1 Power Cables - 1 x ASRock Wi-SB Box - 12 x Screws

# Z77 Extreme11

Intel® Z77 Chipset

**ASRock**  
www.asrock.com

## SAS2/SATA3

8X



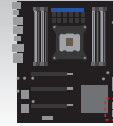
## 8 SAS2/SATA3 (6 Gb/s) FROM LSI™ SAS 2308 PCIe 3.0 x8 CONTROLLER

The feature-rich Z77 Extreme11 motherboard offers rich storage options. It provides 10 SATA3 ports, 8 of which are SAS2/SATA3 (6 Gb/s) ports sourced from LSI™ SAS 2308 PCIe 3.0 x8 controller. Via LSI™ MegaRAID® utility, users can get high transfer speed 3.8 GB/s through 8 SSDs in RAID 0 mode.



ASRock Z77 Extreme11 provides 8\* SAS2/SATA3 ports (from LSI SAS 2308 PCIe 3.0 x8 controller)

RAID 0 with 8\*SSD



Other Z77 motherboard provides 2\* SATA3 ports (from Intel Z77 chipset)

RAID 0 with 2\*SSD



## 3-WAY SLI & 4-WAY CROSSFIREX

SUPPORTED BY PLX PEX 8747 BRIDGE

PLX PEX 8747 is a PCIe Gen3 bridge chip. It offers solid PCIe 3.0 lanes for PCIe devices and is optimized to support high performance graphics. With this bridge onboard, ASRock Z77 Extreme11 is able to work with three VGA cards (3-Way SLI/CrossFireX) at PCI-E Gen3 x8 / x8 / x8 mode or four VGA cards (4-Way CrossFireX) at PCI-E Gen3 x8 / x8 / x8 / x4 mode.



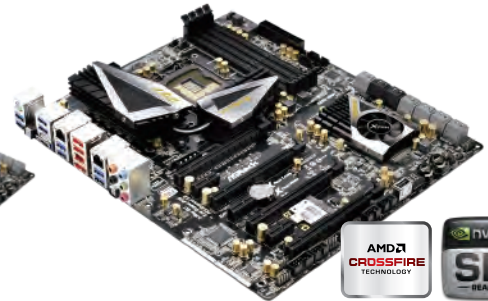
PCI-E1 (x8)  
PCI-E3 (x8)  
PCI-E5 (x8)

● 3-Way SLI, 3-Way CrossFireX



PCI-E1 (x8)  
PCI-E3 (x8)  
PCI-E5 (x8)  
PCI-E7 (x4)

● 4-Way CrossFireX



## Digi Power

Traditional motherboards are mostly equipped with analog Pulse-width modulation (PWM), which might bring users annoying problems that the CPU power supply is not stable enough, hence affects the computing efficiency. To improve CPU power solution, ASRock motherboards adapt Digi Power (digital Pulse-width modulation), providing CPU Vcore voltage more efficiently and smoothly. In addition, the unique Digi Power provides the most reliable computing CPU power solution, allowing users to enjoy the amazing performance.

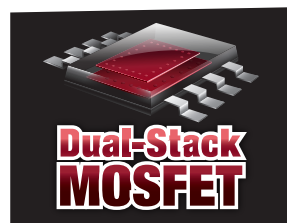
## Premium Gold Caps

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.



## Dual-Stack MOSFET (DSM)

Dual-Stack MOSFET (DSM) is an innovative new design of MOSFETs. The silicon die area is increased by stacking two dies into a MOSFET. The larger the die area, the lower Rds(on). Compared to traditional discrete MOSFET, DSM can provide larger die area and lower Rds(on), so the power supply for CPU Vcore is more efficient.



## 2T2R Dual-Band WiFi + Bluetooth v4.0 Support

ASRock Z77 Extreme11 motherboard comes with an exclusive 2T2R WiFi 802.11 a/b/g/n + BT v4.0 module that offers support for WiFi 802.11 a/b/g/n connectivity standards and Bluetooth v4.0. WiFi module is an easy-to-use wireless local area network (WLAN) adapter to support WiFi function. Bluetooth v4.0 standard features Smart Ready technology and Low Energy Technology.



## Wi-SB BOX

Wi-SB BOX provides two invisible antennas (placed in a vertical/horizontal position), hidden inside the front panel that offer the most stable wireless network coverage. It even comes with 2 front USB 3.0 ports for easier USB 3.0 device and 1 rack for SSD placement.



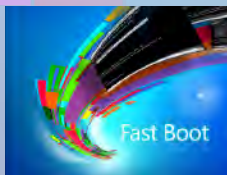


## Windows 8 Support

### 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.



### 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.



### 20Z Copper PCB

Using only carefully selected copper materials for PCB layers, 20Z Copper PCB delivers lower temperature and higher energy efficiency for overclocking.



### 8+4 Power Phase Design

ASRock Z77 Extreme11 is designed with a 8 + 4 Power Phase design. It features sturdy components and completely smooth power delivery to the CPU. Plus, it offers unmatched overclocking capability and enhanced performance with the lowest temperature for advanced gamers as well.



### Intel Dual Gigabit LAN

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.



### 12 USB 3.0 (4 Front, 8 Back)

Rich storage options! ASRock Z77 Extreme11 offers 12 USB 3.0 (4 from onboard header, 8 from rear I/O) to facilitate computing environment.



### Lucid Virtu MVP

Brilliantly designed for gaming, Virtu MVP switchable graphics software assigns tasks dynamically to the best graphics resource and features two exciting techniques - HyperFormance™ and Virtual Vsync™.



### 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.



### Interactive UEFI

ASRock Interactive UEFI is a blend of system configuration tools, cool sound effects and stunning visuals. The unprecedented UEFI provides a more attractive interface and brings a lot more amusing.



### XFast 555

(XFast RAM, XFast LAN, XFast USB)

ASRock unique XFast 555 Technology (XFast RAM, XFast LAN, and XFast USB) allows users to experience 5 times performance boost in terms of system performance, LAN speed and USB transfer speed.

