

# G31DE

Intel® G31 + ICH7 Chipsets

**ASRock**  
www.asrock.com



FSB  
**1600**  
MHz

DDR2  
**1066**

PCIe Gigabit LAN

Intel® GMA 3100  
Direct X9.0

4 x SATAII

OC Tuner

Intelligent Energy Saver

Smart BIOS

## Product Brief <<<

- Compatible with all FSB1600 MHz CPU
- Intel® Graphics Media Accelerator 3100, DirectX 9.0, Max. shared memory 384MB
- PCIe Gigabit LAN
- Supports ASRock Instant Boot
- Supports Smart BIOS, ASRock OC Tuner, Intelligent Energy Saver

## Detail Specification <<<

<b>Platform</b>	- ATX Form Factor: 12.0-in x 7.5-in, 30.5 cm x 19.1 cm
<b>CPU</b>	- LGA 775 for Intel® Core™ 2 Extreme / Core™ 2 Quad / Core™ 2 Duo / Pentium® Dual Core / Celeron® Dual Core / Celeron®, supporting Penryn Quad Core Yorkfield and Dual Core Wolfdale processors - Compatible with all FSB1600/1333/1066/800MHz CPUs - Supports Hyper-Threading Technology - Supports Unified Overclocking Technology - Supports EM64T CPU
<b>Chipset</b>	- Northbridge: Intel® G31 - Southbridge: Intel® ICH7
<b>Memory</b>	- Dual Channel DDR2 memory technology - 2 x DDR2 DIMM slots - Supports DDR2 1066/800/667 non-ECC, un-buffered memory - Max. capacity of system memory: 8GB
<b>Expansion Slot</b>	- 1 x PCI Express x16 slot - 2 x PCI Express x1 slots - 3 x PCI slots
<b>Graphics</b>	- Intel® Graphics Media Accelerator 3100 - Pixel Shader 2.0, DirectX 9.0 - Max. shared memory 384MB
<b>Audio</b>	- 5.1 CH Windows® Vista™ Premium Level HD Audio (Realtek ALC662 Audio Codec)
<b>LAN</b>	- PCIe x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111DL - Supports Wake-On-LAN
<b>Rear Panel I/O</b>	I/O Panel - 1 x PS/2 Mouse Port - 1 x PS/2 Keyboard Port - 1 x Serial Port: COM1 - 1 x VGA Port - 4 x Ready-to-Use USB 2.0 Ports - 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED) - HD Audio Jack: Line in / Front Speaker / Microphone
<b>Connector</b>	- 4 x SATAII 3.0 Gb/s connectors (No support for RAID and "Hot Plug" functions) - 1 x ATA100 IDE connector (supports 2 x IDE devices) - 1 x Floppy connector - 1 x IR header - 1 x Print port header - 1 x HDMI_SPDIF 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)
<b>BIOS Feature</b>	- 4Mb AMI BIOS - AMI Legal BIOS - Supports "Plug and Play" - ACPI 1.1 Compliance Wake Up Events - Supports jumperfree - SMBIOS 2.3.1 Support - CPU, VCCM Voltage Multi-adjustment - Supports Smart BIOS
<b>Support CD</b>	- Drivers, Utilities, AntiVirus Software (Trial Version)
<b>Unique Feature</b>	- ASRock OC Tuner - Intelligent Energy Saver - Instant Boot - Hybrid Booster: - CPU Frequency Stepless Control - ASRock U-COP - Boot Failure Guard (B.F.G.)
<b>Hardware Monitor</b>	- CPU Temperature Sensing - Chassis Temperature Sensing - CPU/Chassis/Power Fan Tachometer - CPU Quiet Fan - Voltage Monitoring: +12V, +5V, +3.3V, CPU Vcore
<b>OS</b>	- Microsoft® Windows® 2000 / XP / XP 64-bit / Vista™ / Vista™ 64-bit compliant
<b>Certifications</b>	- FCC, CE, WHQL
<b>Accessories</b>	- Quick Installation Guide, Support CD, I/O Shield - ATA 100 Cable - 1 x SATA Data Cable (Optional) - 1 x SATA 1 to 1 Power Cable (Optional)

The specification is subject to change without notice. The brand and product names are trademarks of their respective companies. Any configuration other than original product specification is not guaranteed.

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## ASRock Instant Boot

ASRock Instant Boot is a new feature invented exclusively by ASRock. It can boot up system in an amazing speed, which is 10 times faster than traditional boot up. For home users or office PC users, ASRock Instant Boot can also guarantee a clean Windows OS, and consumed less power! For details:

<http://www.asrock.com/feature/InstantBoot/index.asp>

\* This function is applicable ONLY to single user that does not secure ID and Password to their systems.

\* The boot up time depends on the hardware configuration.

### Instant Boot Interface

This function is designed with two main options:

- **Enable Instant Boot**

**Fast Mode:** It takes only 3 to 4 seconds to boot up the system. You may start using your computer, running Office, browsing internet and even MSN instantly.

**Regular Mode:** It only takes half of the traditional boot-up time to start the system. The boot up experience is safe and fast.

- **Disable Instant Boot**

Instant Boot can also be disabled when you do not want to use this application.

Note: The actual boot up time is subject to the different models and configurations.



10 Times Faster, Only 4 Secs to Boot Up to Windows!

### ASRock YouTube

<http://tw.youtube.com/watch?v=BucljXZVxXo>



### Pro and Cons of various shut down modes

From this sum up table, we can find that ASRock Instant Boot not only excels in the Boot Up speed (3~4 sec.), it also provides clean OS and saves the most power energy.

	No Shut Down	Traditional boot up	S3	S4	Instant Boot	
					Fast Mode	Regular Mode
<b>Boot Up Time</b>	Best ●	Worse ● 50~60 sec	Best ● 3~4 sec.	Good ● 20~22 sec.	Best ● 3~4 sec.	Good ● 20~22 sec.
<b>Cleanliness of OS</b>	Fair ● Accumulated garbage data	Best ● Clean	Fair ● Accumulated garbage data	Fair ● Accumulated garbage data	Best ● Clean	Best ● Clean
<b>Power Consumption (Light loading)</b>	Worse ● 60W~100W	Best ● 1W~3W	Best ● 1W~3W	Best ● 1W~3W	Best ● 1W~3W	Best ● 1W~3W

● Best   ● Good   ● Fair   ● Worse