G41C-GS

Intel® G41+ ICH7 Chipsets

ASRock®
www.asrock.com

Supports Intel CORE 2 Extreme inside™

Supports Intel CORE 2 Quad inside™

Supports Intel CORE 2 Duo inside™

Compatible with Windows®7

RoHS

FREE Bundle
ASRock Software Suite
★ CyberLink Power2Go 6.1 LE OEM
★ CyberLink MediaShow 4.1 SE OEM
★ CyberLink PowerDVD 8.0 DTS Trial
★ CyberLink PowerDirector 8.0 Trial
★ CyberLink PowerBackup 2.5 Trial
★ Creative Sound Blaster X-Fi MB Trial

EuP Ready
less than 1 Watt in off mode

Instant Boot

DDR2 + DDR3 Combo Design
DDR2 800 - DDR3 1333(OC)

FSB 1333 MHz

Intel® GMA X4500 DX10, PS 4.0

PCIE Gigabit LAN

Product Brief

- **Supports FSB1333/1066/800/533 MHz CPUs**
- **Supports Dual Channel DDR3 1333 (OC) + DDR2 800**
- **Intel® Graphics Media Accelerator X4500, Pixel Shader 4.0, DirectX 10, Max. shared memory 1759MB**
- **PCIE Gigabit LAN**
- **EuP Ready**
- **Supports ASRock Instant Boot, Instant Flash, OC DNA, ASRock OC Tuner (Up to 143% CPU frequency increase)**
- **Supports Intelligent Energy Saver (Up to 20% CPU Power Saving)**
- **Free Bundle : CyberLink DVD Suite - OEM and Trial; Creative Sound Blaster X-Fi MB - Trial**

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.

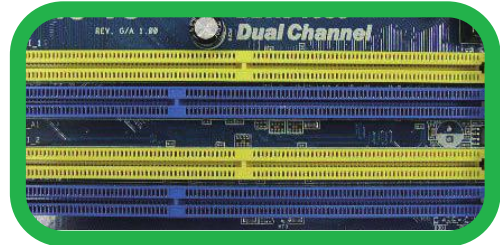## Detail Specification <<<

Platform	- Micro ATX Form Factor: 9.6-in x 7.8-in, 24.4 cm x 19.8 cm
CPU	- 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 - Supports FSB1333/1066/800/533 MHz - Supports Hyper-Threading Technology - Supports Untied Overclocking Technology - Supports EM64T CPU
Chipset	- Northbridge: Intel® G41 - Southbridge: Intel® ICH7
Memory	- Dual Channel DDR3/DDR2 memory technology - 2 x DDR3 DIMM slots - Supports DDR3 1333(OC)/1066/800 non-ECC, un-buffered memory - Max. capacity of system memory: 8GB - 2 x DDR2 DIMM slots - Supports DDR2 800/667/533 non-ECC, un-buffered memory - Max. capacity of system memory: 8GB
Expansion Slot	- 1 x PCI Express x16 slot - 1 x PCI Express x1 slot - 2 x PCI slots
Graphics	- Intel® Graphics Media Accelerator X4500 - Pixel Shader 4.0, DirectX 10 - Max. shared memory 1759MB - Supports D-Sub with max. resolution up to 2048x1536 @ 75Hz
Audio	- 5.1 CH HD Audio (VIA® VT1705 Audio Codec)
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111DL - Supports Wake-On-LAN
Rear Panel I/O	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
Connector	- 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 Print port header - CPU/Chassis/Power FAN connector - 24 pin ATX power connector - 4 pin 12V power connector - Front panel audio connector - 2 x USB 2.0 headers (support 4 USB 2.0 ports)
BIOS Feature	- 8Mb AMI Legal BIOS - Supports "Plug and Play" - ACPI 1.1 Compliance Wake Up Events - SMBIOS 2.3.1 Support - VCCM, NB, VTT, GTLRef Voltage Multi-adjustment
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), ASRock Software Suite (CyberLink DVD Suite - OEM and Trial ; Creative Sound Blaster X-Fi MB - Trial)

Unique Feature	- ASRock OC Tuner
	- Intelligent Energy Saver
	- Instant Boot
	- ASRock Instant Flash
	- ASRock OC DNA
	- Hybrid Booster:
	  - CPU Frequency Stepless Control
	  - ASRock U-COP
	  - Boot Failure Guard (B.F.G.)

Hardware Monitor	- CPU Temperature Sensing - Chassis Temperature Sensing - CPU/Chassis/Power Fan Tachometer - CPU Quiet Fan - 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 - EuP Ready (EuP ready power supply is required)
Accessories	- Quick Installation Guide, Support CD, I/O Shield - 2 x SATA Data Cables (Optional)

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DDR2 / DDR3

Combo Design

DDR2 800 / DDR3 1333 (OC)

DDR2 vs DDR3 Memory Performance Comparison

Model	G41C-GS	
CPU	E7600	
OS	Win 7 64bit	
HDD	WD 160G	
ODD	LG GH22NS50	
PSU	350W	
BIOS	L0.06	
RAM	Kingston DDR2 800 2G*2	Transcend DDR3 1066 2G*2
Frequncy	800	1066
Items	Kingston DDR2 800 2G*2	Transcend DDR3 1066 2G*2
Memory Bandwidth(Higher is better)	5.09GB/s	**5.74GB/s**
Cache and Memory(Higher is better)	23.33GB/s	**24.48GB/s**
Memeory Latency(Lower is better)	111ns	**88ns**
Speed Factor(Lower is better)	106.9	**88.9**

With DDR3, memory bandwidth boost up more than 12.8%

Memory Bandwidth (Higher is better)

5.74
5.09

■ Transcend DDR3 1066 2G*2
■ Kingston DDR2 800 2G*2

4.6 4.8 5 5.2 5.4 5.6 5.8

GB/s

Cache and Memory (Higher is better)

24.48
23.33

■ Transcend DDR3 1066 2G*2
■ Kingston DDR2 800 2G*2
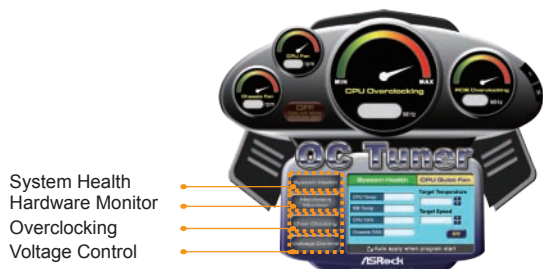
22.5 23 23.5 24 24.5

GB/s
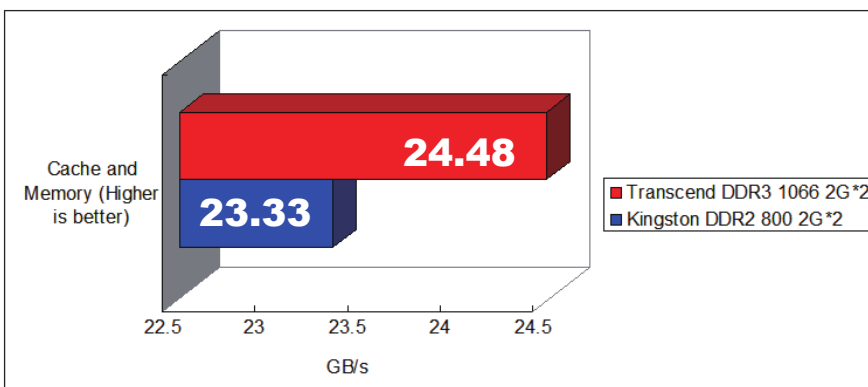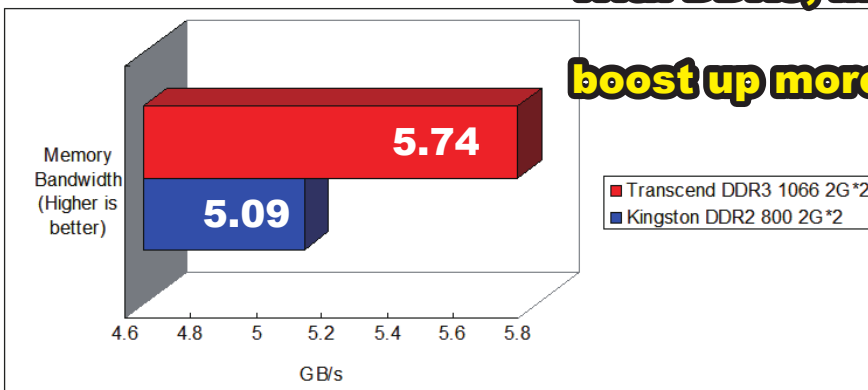
G41C-GS

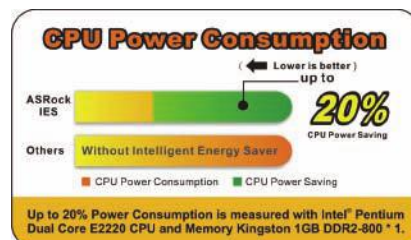Intel® G41+ ICH7 Chipsets

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ASRock OC Tuner:

ASRock OC Tuner is a user-friendly and untied tool which allows you to guard your system by hardware monitor function and overclock your hardware devices to get the best system performance

System Health
Hardware Monitor
Overclocking
Voltage Control
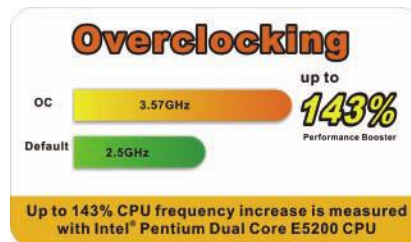
Energy Saving :

Supports ASRock Intelligent Energy Saver (I.E.S)

Power Saving

CPU power
information

CPU Power saving up to **20%**

What is EuP?

EuP, stands for Energy Using Product, was a provision regulated by European Union to define the power consumption for the completed system. With the great quantity and the popularly using of the electrical products nowadays and the continuously increasing of the electrical products categories in the following 20 to 30 years, European Union decided to establish an effective strategy to solve the energy consumption problem. That is, according to EuP, the total AC power of the completed system shall be under 1.00W in off mode condition.

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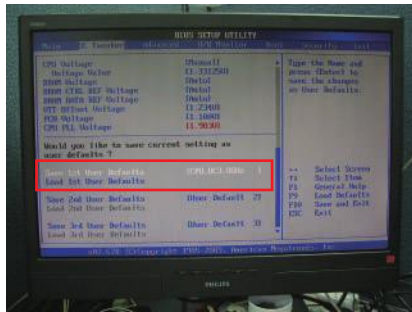
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OC DNA

Save your OC settings as a profile and share with friends. Try OC DNA now!

OC DNA Instruction

Step 1

Save your BIOS OC settings as User Default in BIOS OC Tweaker menu. (For example: we name this User Default setting as "CPU_OC3.8GHz")
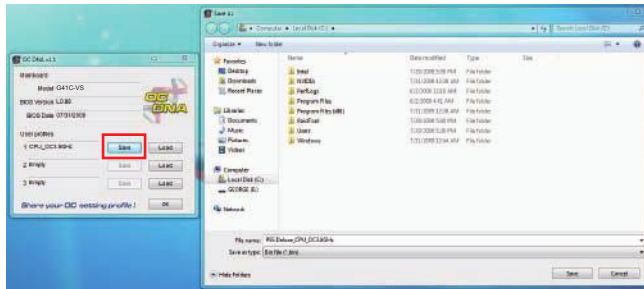
Step 2

Execute ASRock OC DNA under OS, you will find "CPU_OC3.8GHz" as User Profile 1.

Step 3
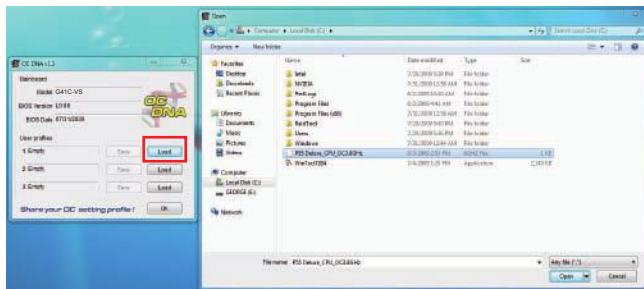
Press "Save" button to save the "CPU_OC3.8GHz" OC settings as a profile.

Step 4

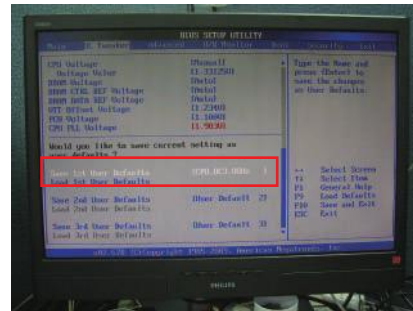Send the "CPU_OC3.8GHz" profile to other friends.

Step 5

When the friend receives your "CPU_OC3.8GHz" profile, he can press "Load" to load the "CPU_OC3.8GHz" profile in OC DNA.

Step 6

After that, the friend can enter into BIOS OC Tweaker menu to load the "CPU_OC3.8GHz" profile as his BIOS OC settings.

Now, you have successfully share your OC setting profile with your friends.

*The OC DNA works only when users use the same motherboard and BIOS version.

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.

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

ASRock YouTube

http://tw.youtube.com/watch?v=BucIjXZVxXo

4 Secs

ASRock Instant Boot is 10 times faster than traditional mode!

ASRock Instant Flash

ASRock Instant Flash is an exclusive and the most user-friendly BIOS flash utility developed by ASRock. It is embedded in Flash ROM which is used to update the system BIOS without having to enter operating systems like MS-DOS or Windows.

Features

Once executing ASRock Instant Flash, the utility will automatically detect all devices such as USB, hard disk or even floppy drive to find the exact BIOS for your system. Instead of giving you all BIOS in your devices, the Instant Flash just list BIOS versions that apply to your motherboard model only. For example, if you have many different BIOS of different motherboards saved in your devices, but you just need to flash your P45 motherboard, the Instant Flash will just list the P45 BIOS versions for you. This unique function allows you to easily select the suitable BIOS version instead of browsing through all data.
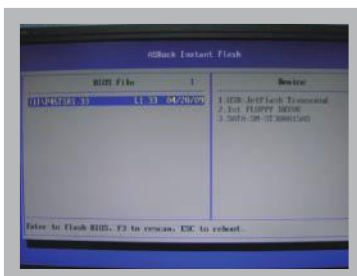
Instant Flash just list BIOS versions that apply to your motherboard model.

Simple!

Click and start Flashing!

Quick!

CyberLink Power2Go 6.1 LE OEM

Power2Go 6 lets you burn and backup videos, photos, music and data onto Blu-ray Discs and DVDs.

CyberLink MediaShow 4.1 SE OEM

Photo and video management software MediaShow edits videos and photos instantly, creates slideshow, and allows publishing directly to YouTube and Flickr.

CyberLink PowerDVD 8.0 DTS Trial

World-renowned PowerDVD 8 DTS delivers outstanding DVD movie playback quality on your PC.

CyberLink PowerDirector 8.0 Trial

PowerDirector - Video Editing software – edits high-definition videos including AVCHD, allows output to PSP iPod and Blu-ray Disc.

CyberLink PowerBackup 2.5 Trial

PowerBackup backups valuable data on your PC.

Creative Sound Blaster X-Fi MB Trial

The Sound Blaster X-Fi MB solution provides premium audio quality, effects and features for PC systems equipped with onboard audio.

For gamers, the EAX® ADVANCED HD 4.0, with its state-of-the-art Multi-Environment rendering and reverb modelling, delivers a much more realistic and immersive 3D gaming experience than your motherboard audio ever will.