

A780GM-LE/128M

AMD 780G + SB710 Chipsets

ASRock
www.asrock.com



FSB
2600
MHz

DDR2
1066

AMD Radeon HD 3200
DX10, PS 4.0

ATI™ Hybrid
CrossFireX™

128M
Side Port Memory

Dual VGA Output:
DVI-D & D-Sub
ports

Product Brief <<<

- Supports for AM3 / socket AM2+ / AM2 processors
- Supports AMD OverDrive™ with ACC feature (Advanced Clock Calibration)
- Supports ATI™ Hybrid CrossFireX™
- Integrated AMD Radeon HD 3200 graphics, DX10 class iGPU, Pixel Shader 4.0, Max. shared memory 512MB
- Integrated 128MB side port memory for iGPU
- Dual VGA Output options: DVI-D and D-Sub ports
- Supports ASRock Instant Boot, Instant Flash, Smart BIOS, OC Tuner, Intelligent Energy Saver

Detail Specification <<<

| | |
|------------------|--|
| Platform | - Micro ATX Form Factor: 9.6-in x 7.8-in, 24.4 cm x 19.8 cm |
| CPU | - Support for Socket AM2+ / AM2 processors: AMD Phenom™ FX / Phenom / Athlon 64 FX / Athlon 64 X2 Dual-Core / Athlon X2 Dual-Core / Athlon 64 / Sempron processor - Support for AM3 processors: AMD Phenom™ II X4 / X3 and Athlon II X4 / X3 / X2 processors - Supports AMD OverDrive™ with ACC feature (Advanced Clock Calibration) - AMD LIVE!™ Ready - Supports AMD's Cool 'n' Quiet Technology - FSB 2600 MHz (5.2 GT/s) - Supports Untied Overclocking Technology - Supports Hyper-Transport 3.0 (HT 3.0) Technology |
| Chipset | - Northbridge: AMD 780G - Southbridge: AMD SB710 |
| Memory | - Dual Channel DDR2 memory technology - 2 x DDR2 DIMM slots - Supports DDR2 1066/800/667/533 non-ECC, un-buffered memory - Max. capacity of system memory: 8GB |
| Expansion Slot | - 1 x PCI Express 2.0 x16 slot (green @ x16 mode) - 1 x PCI Express 2.0 x1 slot - 2 x PCI slots - Supports ATI™ Hybrid CrossFireX™ |
| Graphics | - Integrated AMD Radeon HD 3200 graphics - DX10 class iGPU, Pixel Shader 4.0 - Max. shared memory 512MB - Integrated 128MB side port memory for iGPU - Dual VGA Output: support DVI-D and D-Sub ports by independent display controllers - Supports HDCP function with DVI-D port - Supports Full HD 1080p Blu-ray (BD) / HD-DVD playback |
| Audio | - 5.1 CH Windows® Vista™ Premium Level HD Audio (ALC662 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 VGA/D-Sub Port - 1 x VGA/DVI-D Port - 6 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 | - 6 x SATAII 3.0 Gb/s connectors, support RAID (RAID 0, RAID 1, RAID 10 and JBOD), NCQ, AHCI and "Hot Plug" functions - 1 x ATA133 IDE connector (supports 2 x IDE devices) - 1 x Floppy connector - 1 x IR header - 1 x Print port header - 1 x COM port header - CPU/Chassis/Power FAN connector - 24 pin ATX power connector - 4 pin 12V power connector - CD in header - Front panel audio connector - 3 x USB 2.0 headers (support 6 USB 2.0 ports) |
| BIOS Feature | - 8Mb AMI BIOS - AMI Legal BIOS - Supports "Plug and Play" - ACPI 1.1 Compliance Wake Up Events - Supports jumperfree - SMBIOS 2.3.1 Support - VCCM, NB Voltage Multi-adjustment - Supports Smart BIOS |
| Support CD | - Drivers, Utilities, AntiVirus Software (Trial Version), AMD OverDrive™ Utility |
| Unique Feature | - ASRock OC Tuner - Intelligent Energy Saver - Instant Boot - ASRock Instant Flash - Hybrid Booster: <ul style="list-style-type: none">- CPU Frequency Stepless Control- ASRock U-COP- Boot Failure Guard (B.F.G.)- ASRock AM2 Boost: ASRock Patented Technology to boost memory performance up to 12.5% |
| Hardware Monitor | - CPU Temperature Sensing - Chassis Temperature Sensing - CPU/Chassis/Power Fan Tachometer - CPU Quiet Fan - Voltage Monitoring: +12V, +5V, +3.3V, Vcore |
| OS | - Microsoft® Windows® XP / XP Media Center / XP 64-bit / Vista™ / Vista™ 64-bit compliant |
| Certifications | - FCC, CE, WHQL |
| Accessories | - Quick Installation Guide, Support CD, I/O Shield - ATA 133 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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Side port memory 128M:

Boost performance up to 36% which is rarely seen on other 780G boards

side port memroy 128M



AMD OverDrive™ with ACC feature (Advanced Clock Calibration)

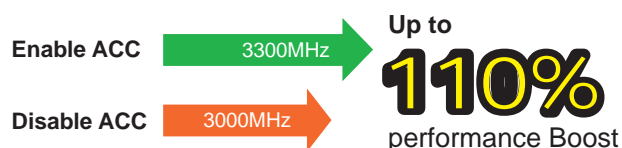
AMD OverDrive™ application interface



AMD OverDrive™ is a powerful tool with numerous features and options which includes clock frequency adjustments, clock multiplier settings, voltage tuning and memory timings.

Advanced Clock Calibration is a performance accelerating feature. This feature is available with the AMD 780G platform and can enable a greater performance tuning margin for the AMD Phenom™ Black Edition CPUs.

CPU Frequency



Configuration:
CPU : Phenom X3 8750 (200 x 12 =2400 Mhz)
Memory : OCZ DDR2-1200
BIOS : L0.03

ASRock A780GM-LE/128M, Worldwide First AMD 780G motherboard supporting AOD ACC function, can boost the CPU frequency up to 110%. The below chart shows the differences between system with AOD ACC function enabled and disabled.

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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 |
| Boot Up Time | Best ● | Worse ● 50~60 sec | Best ● 3~4 sec. | Good ● 20~22 sec. | Best ● 3~4 sec. | Good ● 20~22 sec. |
| Cleanliness of OS | Fair ● Accumulated garbage data | Best ● Clean | Fair ● Accumulated garbage data | Fair ● Accumulated garbage data | Best ● Clean | Best ● Clean |
| Power Consumption (Light loading) | Worse ● 60W~100W | Best ● 1W~3W | Best ● 1W~3W | Best ● 1W~3W | Best ● 1W~3W | Best ● 1W~3W |

● Best ● Good ● Fair ● Worse

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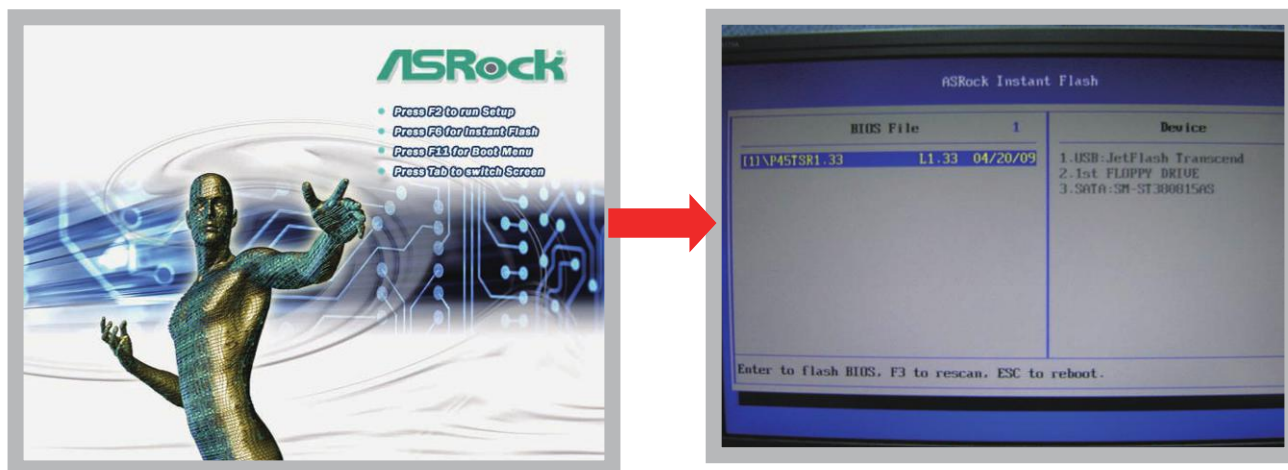
ASRock Instant Flash

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.



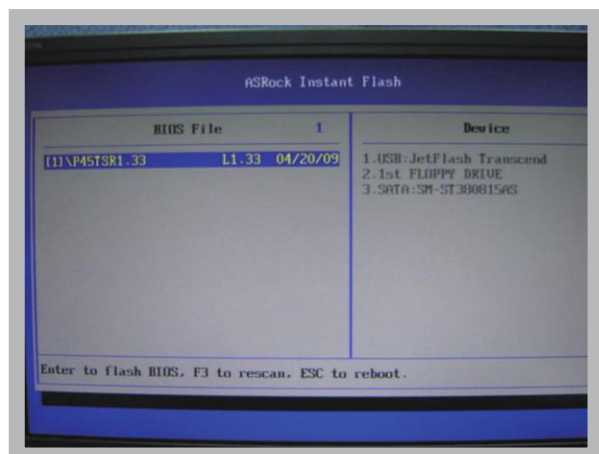
How to execute ASRock Instant Flash?

ASRock Instant Flash is extremely user-friendly. You can access Instant Flash utility directly by pressing F6 when you saw this page.



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!