

# ASUS MB

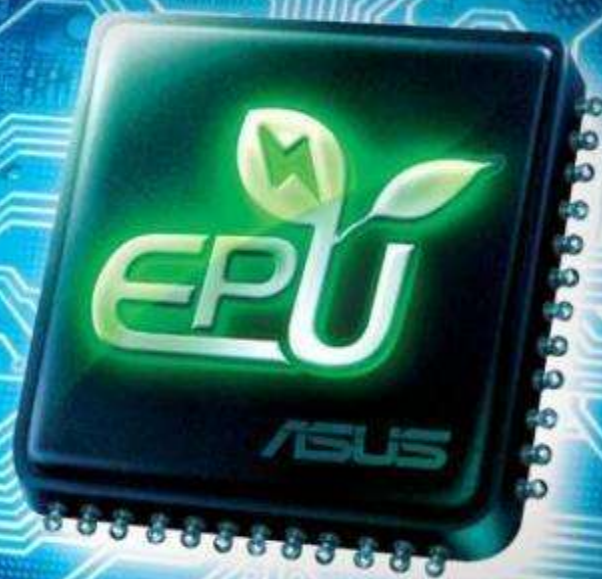
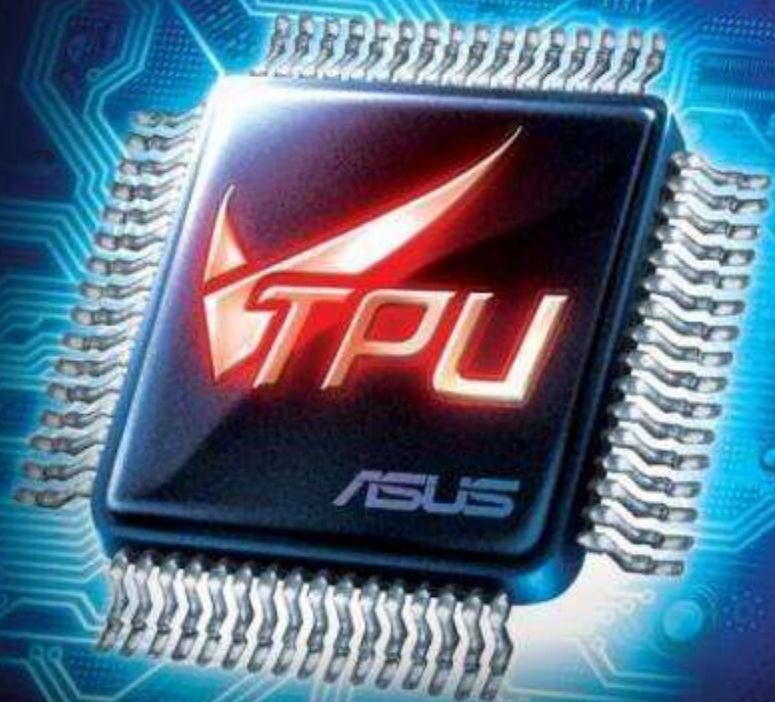


**ASUS**  
Inspiring Innovation. Sustaining Perfection.

# Dual Intelligent Processors

EPU **80% Energy Saving**

TPU **37% Faster**





Dual Intelligent Processors 2

**DIGI+ VRM**



**ASUS**  
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# Dual Intelligent Processors 2



## **DIGI+ VRM --- New Digital Power Design Era**

- High System Stability and Power Efficiency
- Most Precise Adjustment

## **EPU --- Energy Efficiency All Around**

- System Level Energy Saving
- Real-time Power Management

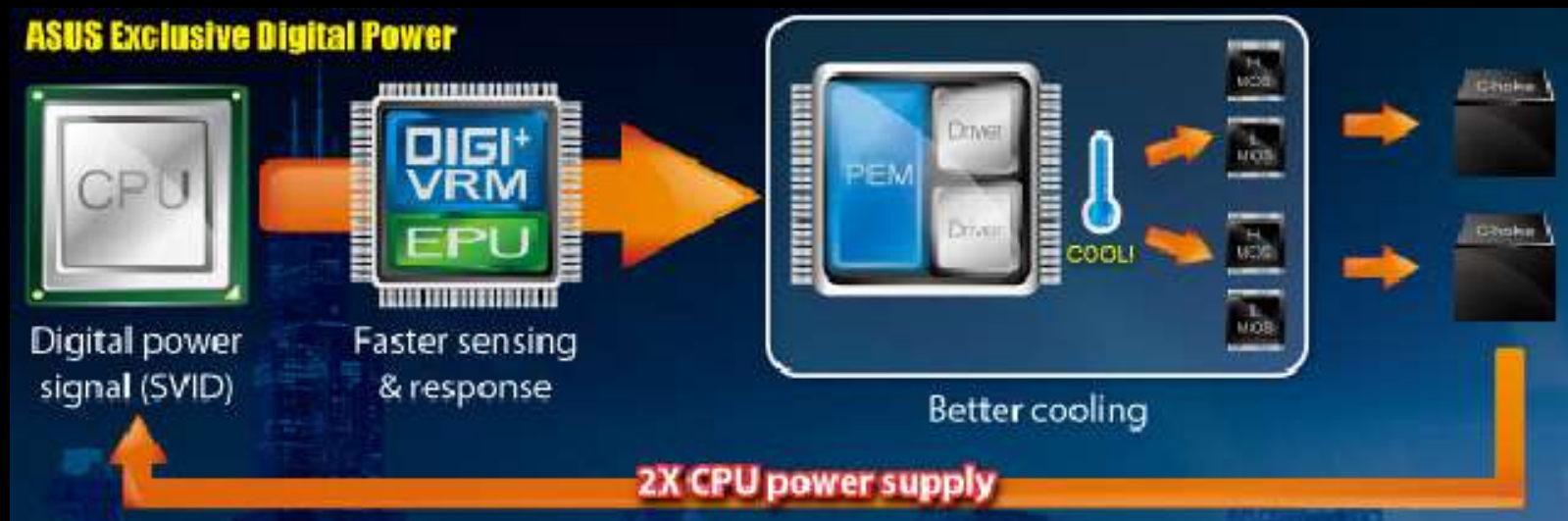


## **TPU --- The Ultimate Turbo Processor**

- Easy O.C.
- Instant Performance Boost
- Self-optimized System Settings

# DIGI+ VRM

VRM (**voltage regulator module**) is the essential design that supply appropriate voltage of CPU demand on a motherboard. A good VRM design should be able **to smartly detect the CPU actual power demand** then **supply the precise power accordingly**.



- **Faster sensing and response:**

DIGI+ VRM (digital controller) perfectly match digital power signal (SVID) requested by CPU, eliminating digital-to-analog signal conversion lag.

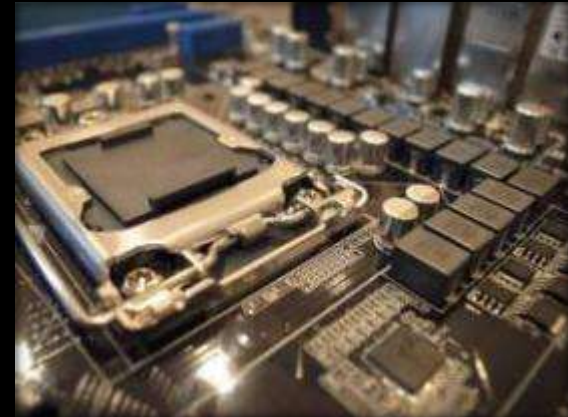
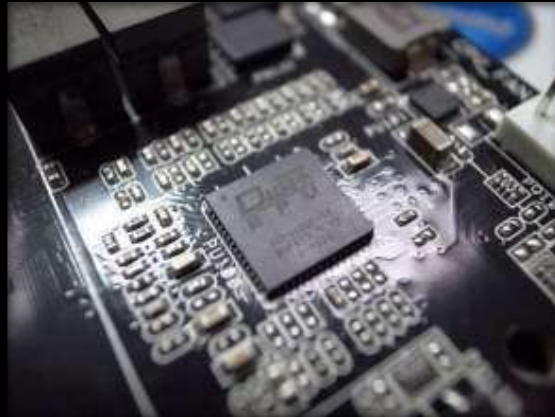
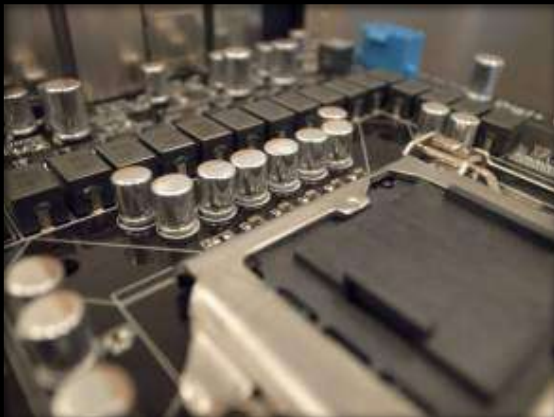
# DIGI+ VRM

Setting the New Power Standard!

## Flash News-

ASUS DIGI+ VRM complies with Sandy Bridge CPU VRD12(digital) SPEC and brings all motherboards to a new power digital control era **while leaving the competitors way behind!!**

***ONLY DIGI+ VRM Can Precisely Match with  
Sandy Bridge  
CPUs!***




# ASUS UEFI BIOS vs. GB's BIOS Solution

ASUS Unbeatable Leading Position

**UEFI BIOS is a must NOW!!**

**But hey! Look what competitors have done so far~**

## ASUS UEFI BIOS



ASUS UEFI BIOS interface showing system information and performance metrics. The interface is graphical and includes a clock, system status, and various settings options.

- ✓ Graphical interface
- ✓ Mouse-control
- ✓ Supports HDD > 2.2TB
- ✓ Easy-to-use EZ Mode

## G-brand traditional BIOS

**Complicated**

**Unreasonable**



Legacy BIOS



Windows-based BIOS Utility

# *That's why you need ASUS UEFI BIOS...*

**Have a look at ASUS UEFI BIOS!**

**Graphical-based Interface**



**Exclusive EZ Mode**



**Support Hard Drives over 2.2 TB**



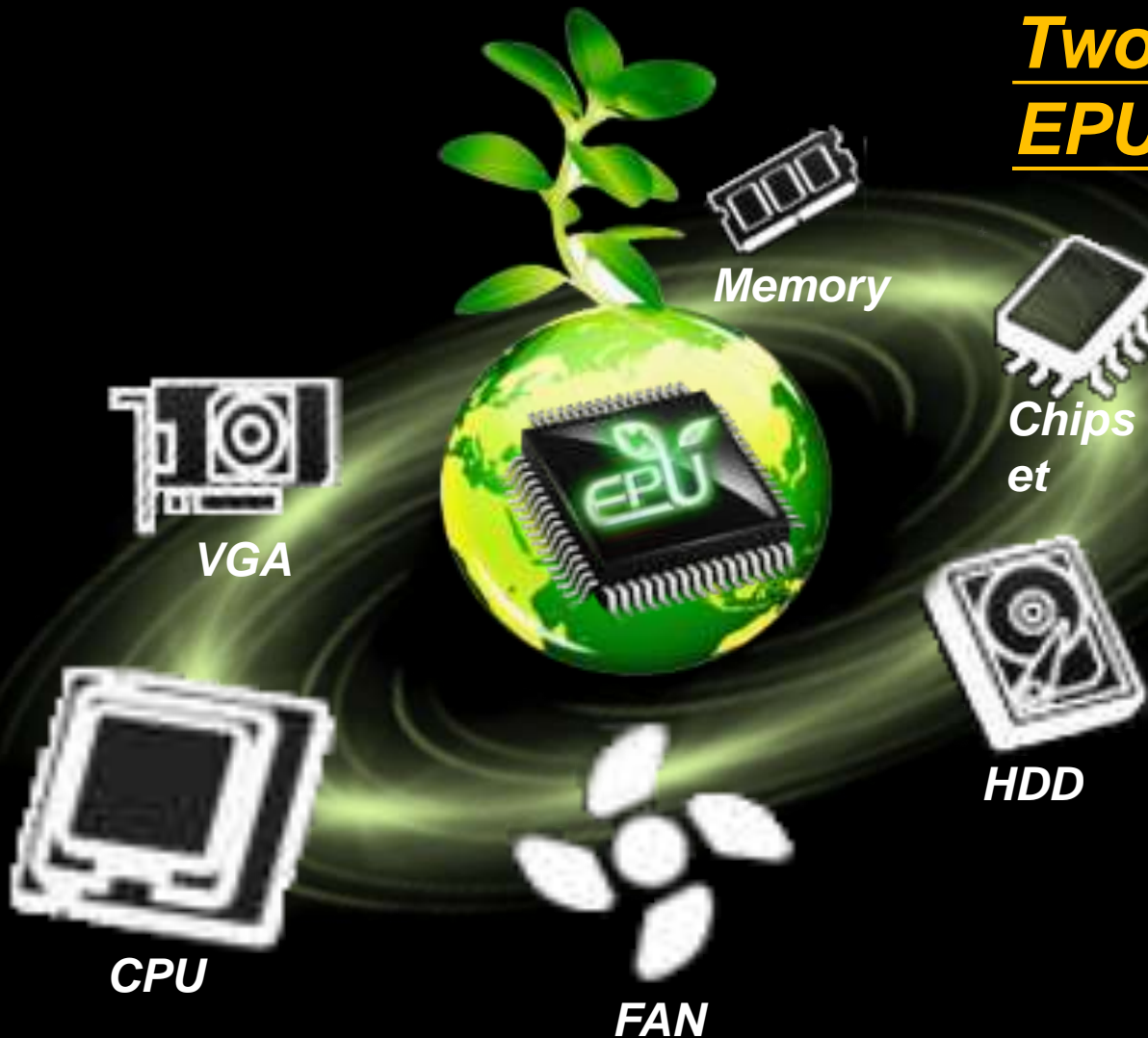
**Support Mouse Control**

***Instantly and easily update your BIOS settings  
without wasting your time for OS***



# EPU

Real Time System Energy Saving Processor



## Two Ways to Enable EPU:

• **Onboard**

**Easy & Fast**



• **Friendly UI**

**Advanced**



# TPU – Auto Tuning

Auto System Level Up

**Two simple ways** to get quick performance boost:

**NEW**

## Onboard Switch

**One Flip**



**OR**

## Easy OC Tool – TurboV EVO

**One Click**



**Easy System Upgrade Right Away!**

# PROTECT 3.0

## Protects the Earth, Systems and You



1.

**EPU Energy Saving Design to save the Earth**



3.

**50% Less Radiation Design to protect you**

2.

**Anti-Surge Protection Design to secure your system**



# The basic requirement of Protect 3.0 --Extreme durable Solid Capacitors



All ASUS Protect 3.0 MBs  
are equipped with  
100% durable solid capacitors



# 2011 MB Naming Rule

**A B C D - E F**

## A: CPU Socket

P8	Intel LGA <b>1155</b>
P7	Intel LGA 1156
P6	Intel LGA 1366
P5	Intel LGA 775
M4	AMD AM3 CPU
M3	AMD AM2+/AM2
M2	AMD AM2

## B: Chipset Marketing Name\*

P67/H67	Intel <b>P67/H67</b> Chipsets
A89/88/87	AMD 890FX/890GX/880G/870 Chipsets
P55/H57H55	Intel P55/H57/H55 Chipsets

## C: Memory

T	DDR3 (AMD platform and Intel LGA775 series only)
C	DDR3 + DDR2

## D: New features

D	Xtreme Design Series with StackCool3/ 3+
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## E: Form Factor

(none)	ATX
V	ATX with VGA out
M	Micro ATX

## F: Series

Premium	Premium Series
Deluxe	Deluxe Series
EVO	Evolution Series
PRO	Professional Series
(none)	Standard Series
LE	Value Series
LE2	Value Series (Revision)
LX	Entry Series

**example: P8H67-M EVO**

Support Intel LGA 1155 CPUs  
 Intel H67 chipsets  
 Micro ATX Form Factor  
 EVO Series

# ASUS VGA



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# Direct Contact is More EFFICIENT

## DirectCU

GPU



Heat Pipe



Available models:

- ✓ MATRIX GTX580 P/2DIS/1536MD5
- ✓ ENGTX580 DCII/2DIS/1536MD5
- ✓ EAH6970 DCII/2DI4S/2GD5
- ✓ ENGT430 DC SL/DI/1GD3



Metal Plate



Solder



# Direct Contact is More EFFICIENT



## ASUS DirectCU Graphics Card -- Raging Cool For the Win

asus 226 videos  Subscribe <http://www.youtube.com/watch?v=8BcA26-Edac>

ASUS DirectCU Graphics Card

DirectCU

GPU

ASUS DirectCU thermal is the answer!

YouTube

0:28 / 1:53

This is a screenshot of a YouTube video player. The video content shows a diagram of the DirectCU cooling system. It features a GPU at the bottom, a DirectCU thermal pad in the middle, and a cooling fan on top. The text 'DirectCU' is written above the thermal pad, and 'GPU' is written below it. Below the video frame, the text 'ASUS DirectCU thermal is the answer!' is displayed. The YouTube logo and a progress bar showing '0:28 / 1:53' are also visible.

DirectCU

Award-winning DirectCU Technology  
20% cooler performance with direct heat dissipation

Traditional Thermal Design  
The EXTRA METAL PLATE hinders heat dissipation

-16-

This comparison diagram shows two cooling methods. The top part, labeled 'DirectCU', shows a cooling fan connected to a GPU via a curved thermal pad, with arrows indicating direct heat dissipation. The bottom part, labeled 'Traditional Thermal Design', shows a GPU with an 'EXTRA METAL PLATE' on top, which hinders heat dissipation. The text 'Award-winning DirectCU Technology' and '20% cooler performance with direct heat dissipation' is on the left, and 'Traditional Thermal Design' and 'The EXTRA METAL PLATE hinders heat dissipation' is on the right. A small image of a traditional thermal design is shown in the bottom right corner. The number '-16-' is at the bottom right.



# DirectCU Available Models

\*DirectCU is also known as "DC" in model name



ENGTX560 Ti DC/2DI/1GD5	EAH6870 DC/2DI <u>2S</u> /1GD5
ENGTX560 DC/2DI/1GD5	EAH6850 DC/2DIS/1GD5
ENGTX550 Ti DC TOP/DI/1GD5	EAH6850 DC/2DIS/1GD5/ <u>V2</u>
ENGTX550 Ti DC/DI/1GD5	EAH6770 DC/2DI/1GD5
ENGTX460 DirectCU TOP/2DI/1GD5	EAH6770 DC/ <b>G</b> /2DI/1GD5
ENGTX460 DC TOP/2DI/1GD5/ <u>V2</u>	EAH5850 DirectCU TOP/2DIS/1GD5
ENGTX460 DirectCU/2DI/1GD5	EAH5850 DirectCU/2DIS/1GD5
ENGTX460 SE DC/2DI/1GD5	EAH5830 DirectCU/2DIS/1GD5
ENGTX460 DirectCU TOP/2DI/768MD5	
ENGTS450 DirectCU TOP/DI/1GD5	
ENGTS450 DC OC/DI/1GD5	
ENGTS450 DirectCU/DI/1GD5	

# ASUS DirectCU Silent Graphics Cards



# QUIET OPERATION

# 78 Exposures



EAH6770 DC SL/2DI/1GD5

EAH6670 DC SL/DI/1GD3

ENGTS450 DC SL/DI/1GD3

ENGT440 DC SL/DI/1GD3

ENGT430 DC SL/DI/1GD3



# ASUS Exclusive design

# DirectCU II For the Win!

Up to  
**600%  
AIRFLOW**



## QUIET OPERATION



## Available Models



- ENGTX580 DCII/2DIS/1536MD5
- ENGTX570 DCII/2DIS/1280MD5
- EAH6970 DCII/2DI4S/2GD5
- EAH6950 DCII/2DI4S/2GD5

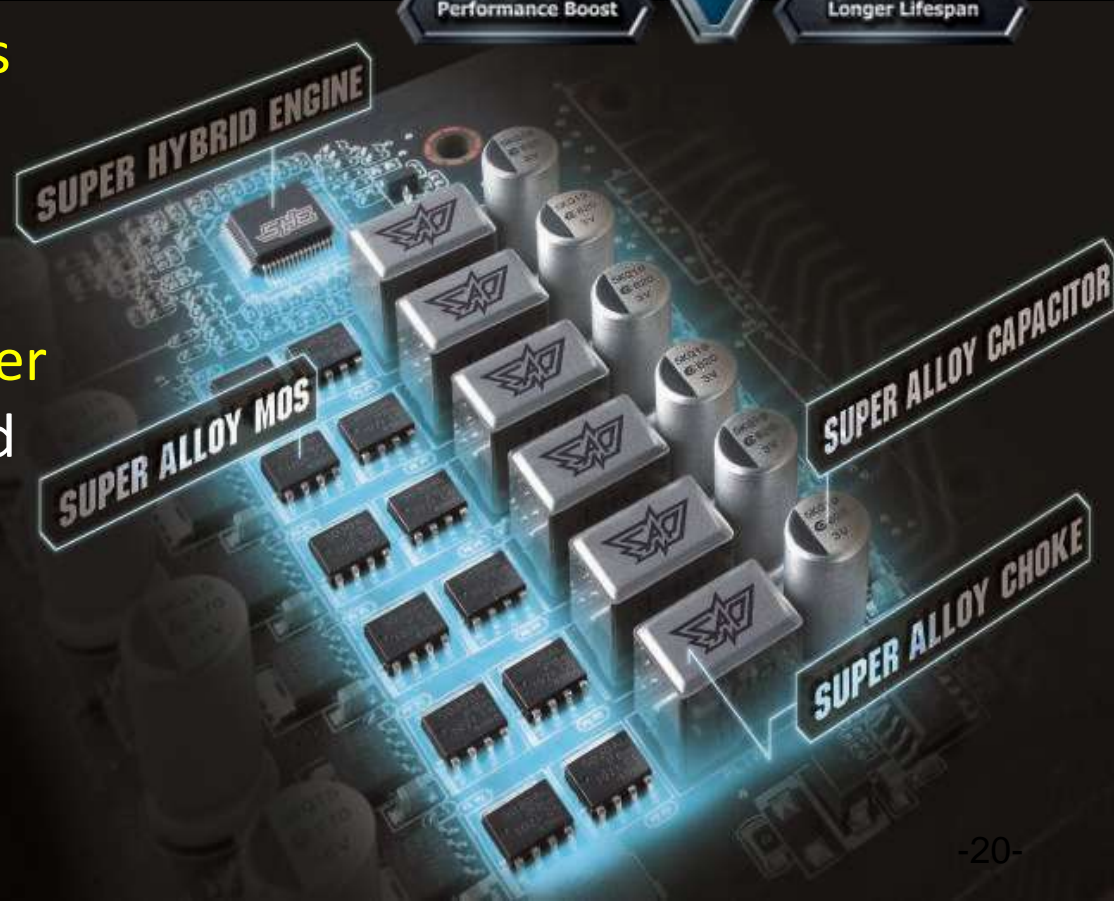


- ENGTX560 Ti DCII TOP/2DI/1GD5
- ENGTX560 Ti DCII/2DI/1GD5
- ENGTX560 DCII TOP/2DI/1GD5
- ENGTX560 DCII OC/2DI/1GD5
- EAH6950 DCII/2DI4S/1GD5

# Super Alloy Power

- A special blend of elements under ASUS exclusive formula produced **under extreme pressure and temperatures**

- Highly-magnetic, heat-resistant and anti-corrosive metals used to **reduce power loss, enhance durability** and **achieve cooler operation**



Pump Up Your Graphics Muscle with



# SUPER ALLOY POWER

# 15%

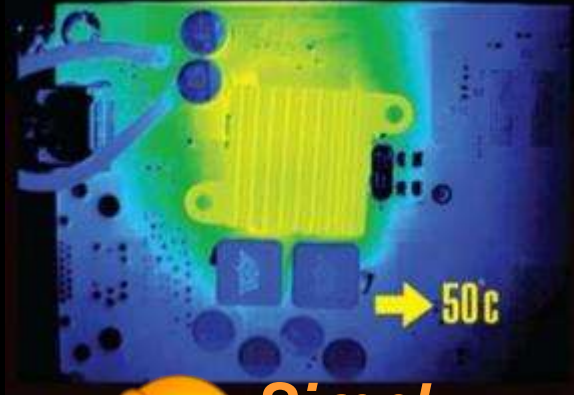
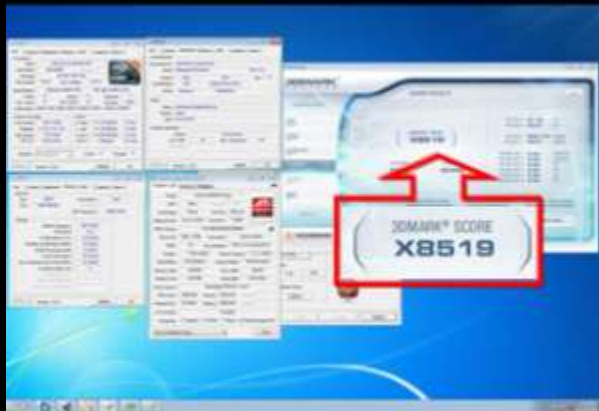
Performance Boost

# 35°C

Cooler Operations

# 2.5x

Longer Lifespan



**Simply cooler!!**



Traditional capacitor

Super Alloy Capacitor

\* Under 75°C ambient temperature



\* Subject to system configuration and prevailing usage. Result may vary. Results shown here are from the test of EAH6870 DC/2DI2S/1GD5

# Brief introductions on official site

[http://www.asus.com/Graphics\\_Cards/Features/Super\\_Alloy\\_Power/](http://www.asus.com/Graphics_Cards/Features/Super_Alloy_Power/)



## Super Alloy Power

15% performance boost, 2.5 times longer lifespan, 35°C cooler operation



The new and exclusive Super Alloy Power technology on ASUS graphics cards uses a special alloy formula which is highly-magnetic, heat-resistant and anti-corrosive. It delivers a more stable and quieter operation compared to the reference design – a welcome bonus sought after by performance seekers.



[Super Alloy Power Video ▶](#)



## Available models:

ENGTX580 DCII/2DIS/1536MD5  
ENGTX570 DCII/2DIS/1280MD5  
ENGTX560 Ti & ENGTX560 Series  
ENGTX550 Ti DC Series  
ENGT440 Series  
ENGT430 Series  
EAH6970 DCII/2DI4S/2GD5  
EAH6950 DCII Series  
EAH6870 DC Series  
EAH6770 Series  
EAH6750 Series  
EAH6670 Series  
EAH6570 Series

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