Intel[®] H55 Chipset







Product Brief < < <

- ASRock DuraCap (2.5 x longer life time), 100% Japan-made high-quality Conductive Polymer Capacitors
- Supports Dual Channel DDR3 2600+(OC)
- Supports ASRock AIWI
- Multi VGA Output options: D-Sub, DVI-D and HDMI
- 1 x USB 3.0 port, Combo Cooler Option (C.C.O.)
- Supports ASRock Instant Boot, Instant Flash, OC DNA, Good Night LED, Multi-Speed Fan Control, OC Tuner, IES
- Turbo 50 / Turbo 100 Technology
- ErP/EuP Ready
- Supports HDMI Audio with Dolby True HD and DTS HD Master Audio
- 7.1 CH HD Audio with Content Protection (Realtek ALC892 Audio Codec), Premium Blu-ray audio support
- Free Software : CyberLink DVD Suite OEM and Trial; Creative Sound Blaster X-Fi MB - Trial

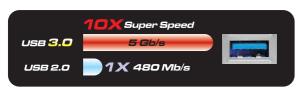
The specification is subject to change without notice. The brand and product names are trademarks of their respective companies. Any configuration other than original product specification is not guaranteed.

Dotan Opeci	fication < < <
Platform	 Micro ATX Form Factor: 9.6-in x 8.8-in, 24.4 cm x 22.4 cm All Solid Capacitor design (100% Japan-made high-quality Conductive Polymer Capacitors)
CPU	Supports Intel [®] Core [™] / 7 / i5 / i3 and Pentium [®] G6950 Processors in LGA1156 Package -4 + 1 Power Phase Design Supports Intel [®] Turb Boost Technology Supports Hyper-Threading Technology Supports United Overclocking Technology Supports EM64T CPU
Chipset	- Intel® H55
Memory	- Dual Channel DDR3 memory technology - 2 x DDR3 DIMM slots - Supports DDR3 2600+(OC)/2133(OC)/1866(OC)/1600/ 1333/1066 non-ECC, un-buffered memory - Max. capacity of system memory: 8GB - Supports Intel [®] Extreme Memory Profile (XMP)
Expansion Slot	- 1 x PCI Express 2.0 x16 slot (blue @ x16 mode) - 2 x PCI Express 2.0 x1 slots (2.5GT/s) - 1 x PCI slot
Graphics *	Requires Processor with Intel® Graphics Technology Intel® HD Graphics Pixel Shader 4.0, DirectX 10 Max, shared memory 1759MB Multi VGA Output options: D-Sub, DVI-D and HDMI Supports HDMI 1.3a Technology with max, resolution up to 1920x1200 Supports DVI with max, resolution up to 1920x1200 @ 60Hz Supports DVI with max, resolution up to 2048x1538 @ 75Hz Supports DVI with max, resolution up to 2048x1538 @ 75Hz Supports HDCP function with HDMI 1.3a (Compliant HDMI monitor is required) Supports HDCP function with DVI and HDMI ports Supports HDCP function with DVI and HDMI ports Supports HDCP function with DVI and HDMI ports Supports Full HD 1080p Blu-ray (BD) / HD-DVD playback with DVI
Audio	21.1 CH DAudio with Content Protection (Realtek ALC892 Audio Codec) - Supports HDMI Audio with Dolby True HD and DTS HD Master Audia (when Intel [®] Core ³¹ 15 600 series / 13 500 series / Pentium [®] G6950 CPU is installed) - Premium Blur-ray audio support
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - Supports Wake-On-LAN
Rear Panel I/O	I/O Panel -1 x PS/2 Keyboard Port -1 x VGAD-Sub Port -1 x VGAD-Sub Port -1 x HDMI Port -1 x HDMI Port -1 x DDH Port -5 x Ready-to-Use USB 2.0 Ports -1 x eSATAII Connector -1 x Ready-to-Use USB 2.0 Ports -1 x Ready-to-Use USB 3.0 Port -1 x Ready-to-Use USB 3.0 Port -1 x Ready-to-Use USB 3.0 Port -1 x Ready-to-Use USB 3.0 Port HD Audio Jack: Rear Speaker / Central / Bass / Line in / Front Speaker / Microphone
USB 3.0	- 1 x USB 3.0 port by Fresco FL1000G, supports USB 3.0 up to 5Gb/s
Connector	- 5 x SATAII 3.0 Gb/s connectors, support NCQ, AHCI and Hot Plug functions - 1 x IR header - 1 x Finit port header - 1 x COM port header - 1 x COM port header - 1 x HOMI_SPDIF header - CPU/Chassis/Power FAN connector - 24 pin ATX power connector - 24 pin ATX power connector - 8 pin 12V power connector - 6 pin 12V power connector - 7 x USB 2.0 headers (support 6 USB 2.0 ports)
BIOS Feature	- 64Mb AMI Legal BIOS - Supports "Plug and Play" - ACPI 1.1 Compliance Wake Up Events - Supports jumperfree - SMBIOS 2.3.1 Support - CPU VID, VCCM, SB, VTT, PCH PLL Voltage Multi-adjustment - Supports I. O. T. (Intelligent Overclocking Technology)
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 - Instant Boot - ASRock Instant Flash - ASRock DC DNA - Hybrid Booster: - CPU Frequency Stepless Control - ASRock U-COP - Boot Failure Guard (B.F.G.) - Combo Cooler Option (C.C.O.) - Good Night LED - Turbo 50 / Turbo 100 Technology (Requires Processor with Intel [®] Graphics Technology)
Hardware Monitor	- CPU Temperature Sensing - Chassis Temperature Sensing - CPU/Chassis/Power Fan Tachometer - CPU/Chassis Fan Multi-Speed Control - CPU Quiet Fan - Voltage Monitoring: +12V, +5V, +3.3V, CPU Vcore
08	- Microsoft® Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit compliant
OS	
OS Certifications	- FCC, CE, WHQL - ErP/EuP Ready (ErP/EuP ready power supply is required)



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USB3.0



USB3.0, the world's best-known computer peripheral interface once again receives a major revamp to stay current with today's most demands for connectivity bandwidth. Delivering data transfer rates up to ten times faster than USB 2.0 with the optimized power efficiency, USB 3.0 promises a major leap forward in transfer speeds and capability.



The World's Fastest Memory DDRS 2000+ support

Motherboard -				
lanufacturer	ASRock		10.00	
Model	H55M US	SB3 R20		
Chipset	Intel		DMI Host Bridge	Rev. 11
Southbridge	Intel		H55	
LPCIO	Winbond	d	W83667HG-A	Tí -
BIOS				
Brand	American	Megatrend	s Inc.	
Version	L0.05			
Date	02/25/201	0		
Graphic Interf	ace			
,	Version		PCI-Express	
Lin	k Width	x16	Max. Supported	x16
Sid	e Band			

U Ca General	ches Mainboard Men	nory SPD	Grap	ohics About
Туре	DDR3	Chann	els #	Dual
Size	4096 MBytes	DC1	vlode	
		NB Frequ	ency 🗌	3911.9 MHz
Timings —		_		1
	DRAM Frequency	/ 1304	4.0 MHz	
	FSB:DRAM	1 2	2:12	
	CAS# Latency (CL) 11.0	clocks	
RAS	S# to CAS# Delay (tRCD) 11	clocks	
	RAS# Precharge (tRP) 11	clocks	- <u>-</u>
	Cycle Time (tRAS) 30	clocks	
Row Re	efresh Cycle Time (tRFC) 112	clocks	
	Command Rate (CR)	1T	
	DRAM Idle Time			
	Total CAS# (tRDRAM)			
	Row To Column (tRCD)			









ASRock AIWI Quick Start Guide



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System Performance boosts

up to **50%** increase

Simply click the Turbo 50 button in BIOS, the system performance will boost up to 50% increase by automatically overclocking CPU, Memory, GPU frequency and all related voltage settings!

5800

asrock.con

Below table shows that enable Turbo 50 on H55M Pro, the performance will boost up to 50% increase!

F1 F9 F10 ESC

BIOS SETUP UTILITY

[Enabled] [Auto]

[Auto]

Model	H55M Pro
Chipset	Intel H55
BIOS	P1.20
CPU	Core i3 530 2.93 GHz
RAM	Kingston DDR3-1600 2GB*2
VGA	Intel HD Graphics
HDD	Seagate Barracuda 7200.12 250GB

Turbo 50 Performance Test Result

H55M Pro/ Core i3 530	CPU Frequency	Memory Frequency	GPU Frequency	3DMARK 06	PCMARK Vantage	Super PI
Turbo 50 Off	2.93GHz	1333MHz	733MHz	1767	4661	14.485
Turbo 50 On	4GHz	1456MHz	867MHz	2665	5453	10.641
Percentage Increase	36.66%	9.23%	18.28%	50.82%	16.99%	26.54%

aker Setting

CPU Ratio Setting



Model	H55M Pro
Chipset	Intel H55
BIOS	L1.13
CPU	Pentium G6950 2.8GHz (Q3GT-C2)
RAM	Kingston DDR3-1600 2GB*2
VGA	onboard
HDD	Seagate Barracuda 7200.12 250GB

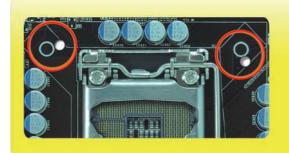
System Performance boosts up to 100% increase with Pentium G6950 CPU

Turbo 100 Performance Test Result

H55M Pro/ Pentium G6950	CPU Frequency	Memory Frequency	3DMARK Vantage (Entry)	3DMARK 06	PCMARK Vantage	Super PI
Turbo 100 Off	2.8GHz	533MHz	3538	1308	3822	16.125
Turbo 100 On	4.2GHz	767MHz	6575	2634	4961	10.766
Percentage Increase	50.00%	43.90%	85.84%	101.38%	29.8%	22.23%

Intel[®] H55 Chipset





Combo Cooler Option

C.C.O. provides the flexible option to adopt two different CPU cooler types, Socket LGA 775* and LGA 1156**.

*C.C.O. may not be compatible with all Socket 775 CPU coolers. **O is for Socket LGA 1156 CPU cooler.



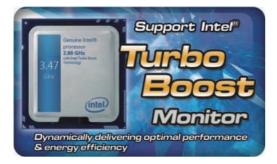
Set your ideal fan speed by tuning the fan speed from level 1 to 10 in BIOS or OC Tuner.



The Power and Keyboard LED will be automatically switched off when the system is under Standby / Hibernation mode.

Support Intel® Turbo Boost Monitor

Dynamically delivering optimal performance & energy efficiency.







ldle

Working



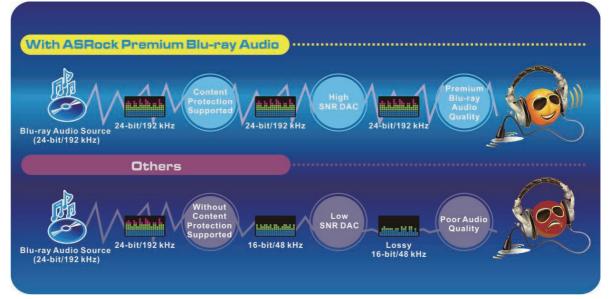
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Premium Blu-ray Audio



Premium Blu-ray Audio, an outstanding technology developed on ASRock motherboard, provides the excellent audio output of 24-bit/192 kHz with its respective Blu-ray DRM compatible driver/software. With Content Protection-Support and High SNR DAC, the Blu-ray entertainments can be played in a high quality of 24-bit/192KHz. In other words, if you are using a device without the Blu-ray Audio support, the audio quality will be downgraded to 16-bit/48kHz like a regular CD quality. To deliver the best possible sound solution for today's most demanding users, ASRock Premium Blu-ray Audio motherboard is the best choice for users who are particularly desired to enjoy the pure HD audio. ASRock users are able to take full advantages of our Blu-ray Audio motherboards. Choose ASRock, choose Pure HD audio!

Why ASRock?



* SNR: Signal-to-Noise Ratio.



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OC DNA

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

OC DNA Instruction

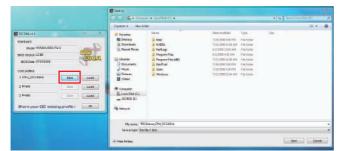
Step 1

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 3

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



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.

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

Step 2

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



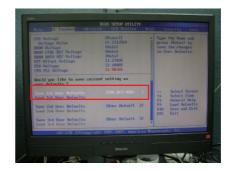
Step 4

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



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.



Intel[®] H55 Chipset

ErP/EuP Ready Motherboard ErP/EuP Ready Power Supply ErP/EuP System

What is ErP/EuP?

less than 1 Watt in off mode

ErP/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 ErP/EuP, the total AC power of the completed system shall be under 1.00W in off mode condition.



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=BucljXZVxXo



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.



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Click and start Flashing!



H55M/USB3 R2.0 Intel® H55 Chipset









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.