

H97M-ITX/ac

Intel® H97 Chipset



Product Brief

ASRock Super Alloy

Premium Alloy Choke (Reduces 70% core loss compared to iron powder choke)

NexFET™ MOSFET

Sapphire Black PCB

- Supports 5th Generation, New 4th and 4th Generation Intel® Core™ i7/i5/i3/Pentium®/Celeron® Processors (Socket 1150)

- Solid Capacitor design

- Intel H97 Chipset

- Supports Dual Channel DDR3 1600

- 1 PCIe 3.0 x16, 1 Vertical Half mini-Pcie for WiFi + BT Module

- Graphics Output Options: D-Sub, DVI-D, HDMI

- Supports Triple Monitor

- Qualcomm® Atheros® Gigabit LAN

- 7.1 CH HD Audio with Content Protection (Realtek ALC892 Audio Codec), ELNA Audio Caps

- 5 SATA3, 6 USB 3.0 (2 Front, 4 Rear), 4 USB 2.0 (2 Front, 2 Rear)

- WLAN: 1 x 802.11ac WiFi + Bluetooth 4.0 module, 2 x ASRock WiFi 2.4/5 GHz Antennas

- Supports ASRock Full Spike Protection, ASRock Cloud, APP Shop, A-Tuning, Full HD UEFI

Detail Specification

Platform	<ul style="list-style-type: none"> Mini-ITX Form Factor Solid Capacitor design High Density Glass Fabric PCB
Unique Feature	<ul style="list-style-type: none"> ASRock Super Alloy <ul style="list-style-type: none"> Premium Alloy Choke (Reduces 70% core loss compared to iron powder choke) NexFET™ MOSFET Sapphire Black PCB ASRock 802.11ac WiFi ASRock Full Spike Protection ASRock Cloud ASRock APP Shop
CPU	<ul style="list-style-type: none"> Supports 5th Generation, New 4th and 4th Generation Intel® Core™ i7/i5/i3/Pentium®/Celeron® Processors (Socket 1150) 4 Power Phase design Supports Intel® Turbo Boost 2.0 Technology
Chipset	<ul style="list-style-type: none"> Intel® H97
Memory	<ul style="list-style-type: none"> Dual Channel DDR3 Memory Technology 2 x DDR3 DIMM Slots Supports DDR3 1600/1333/1066 non-ECC, un-buffered memory Max. capacity of system memory: 16GB Supports Intel® Extreme Memory Profile (XMP) 1.3 / 1.2
Expansion Slot	<ul style="list-style-type: none"> 1 x PCI Express 3.0 x16 Slot (PCIE1: x16 mode) 1 x Vertical Half Mini-PCI Express Slot: For WiFi + BT Module
Graphics	<ul style="list-style-type: none"> * Intel® HD Graphics Built-in Visuals and the VGA outputs can be supported only with processors which are GPU integrated. Supports Intel® HD Graphics Built-in Visuals: Intel® Quick Sync Video with AVC, MVC (S3D) and MPEG-2 Full HW Encode1, Intel® InTru™3D, Intel® Clear Video HD Technology, Intel® Insider™, Intel® HD Graphics 4400/4600 Pixel Shader 5.0, DirectX 11.1 Max. shared memory 1792MB Three graphics output options: D-Sub, DVI-D and HDMI Supports Triple Monitor Supports HDMI with max. resolution up to 1920x1200 @ 60Hz Supports DVI-D with max. resolution up to 1920x1200 @ 60Hz Supports D-Sub with max. resolution up to 1920x1200 @ 60Hz Supports Auto Lip Sync, Deep Color (12bpc), xvYCC and HBR (High Bit Rate Audio) with HDMI Port (Compliant HDMI monitor is required) Supports HDCP with DVI-D and HDMI Ports Supports Full HD 1080p Blu-ray (BD) playback with DVI-D and HDMI Ports
Audio	<ul style="list-style-type: none"> 7.1 CH HD Audio with Content Protection (Realtek ALC892 Audio Codec) Premium Blu-ray Audio support Supports Surge Protection (ASRock Full Spike Protection) ELNA Audio Caps
LAN	<ul style="list-style-type: none"> PCIE x1 Gigabit LAN 10/100/1000 Mb/s Qualcomm® Atheros® AR8171 Supports Qualcomm® Atheros® Security Wake On Internet Technology Supports Wake-On-LAN Supports Lightning/ESD Protection (ASRock Full Spike Protection) Supports Energy Efficient Ethernet 802.3az Supports PXE
Wireless LAN	<ul style="list-style-type: none"> Supports IEEE 802.11a/b/g/n/ac Supports Dual-Band (2.4/5 GHz) Supports High speed wireless connection up to 433Mbps Supports Bluetooth 4.0 / 3.0 + High speed class II

Rear Panel I/O	<ul style="list-style-type: none"> 1 x PS2 Mouse/Keyboard Port 1 x D-Sub Port 1 x DVI-D Port 1 x HDMI Port 1 x Optical SPDIF Out Port 2 x USB 2.0 Ports (Supports ESD Protection (ASRock Full Spike Protection)) 4 x USB 3.0 Ports (Supports ESD Protection (ASRock Full Spike Protection)) 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED) HD Audio Jacks: Rear Speaker / Central / Bass / Line in / Front Speaker / Microphone 		
Storage	<ul style="list-style-type: none"> 5 x SATA3 6.0 Gb/s Connectors, support RAID (RAID 0, RAID 1, RAID 5, RAID 10, Intel Rapid Storage Technology 13 and Intel Smart Response Technology), NCQ, AHCI and Hot Plug 		
Connector	<ul style="list-style-type: none"> 1 x Chassis Intrusion Header 1 x TPM Header 1 x CPU Fan Connector (4-pin) 1 x Chassis Fan Connector (4-pin) 1 x 24 pin ATX Power Connector 1 x 4 pin 12V Power Connector 1 x Front Panel Audio Connector 1 x USB 2.0 Header (Supports 2 USB 2.0 ports) (Supports ESD Protection (ASRock Full Spike Protection)) 1 x USB 3.0 Header (Supports 2 USB 3.0 ports) (Supports ESD Protection (ASRock Full Spike Protection)) 		
BIOS Feature	<ul style="list-style-type: none"> 64Mb AMI UEFI Legal BIOS with multilingual GUI support ACPI 1.1 Compliant wake up events SMBIOS 2.3.1 support CPU, DRAM, PCH 1.05V, PCH 1.5V Voltage multi-adjustment 		
Support CD	<ul style="list-style-type: none"> Drivers, Utilities, AntiVirus Software (Trial Version), Google Chrome Brower and Toolbar, Start8 (30 days trial), Orbweb.ME Professional (Win 8.1 / 7) 		
Software and UEFI	<table border="0"> <tr> <td> <ul style="list-style-type: none"> Software <ul style="list-style-type: none"> ASRock A-Tuning ASRock Disk Health Report ASRock USB Key ASRock System Brower ASRock APP Charger ASRock XFast LAN ASRock XFast RAM ASRock Restart to UEFI </td> <td> <ul style="list-style-type: none"> UEFI <ul style="list-style-type: none"> ASRock Full HD UEFI ASRock My Favorites in UEFI ASRock UEFI Guide ASRock Instant Flash ASRock Crashless BIOS ASRock OMG (Online Management Guard) ASRock UEFI Tech Service ASRock Dehumidifier ASRock Easy RAID Installer ASRock Easy Driver Installer </td> </tr> </table>	<ul style="list-style-type: none"> Software <ul style="list-style-type: none"> ASRock A-Tuning ASRock Disk Health Report ASRock USB Key ASRock System Brower ASRock APP Charger ASRock XFast LAN ASRock XFast RAM ASRock Restart to UEFI 	<ul style="list-style-type: none"> UEFI <ul style="list-style-type: none"> ASRock Full HD UEFI ASRock My Favorites in UEFI ASRock UEFI Guide ASRock Instant Flash ASRock Crashless BIOS ASRock OMG (Online Management Guard) ASRock UEFI Tech Service ASRock Dehumidifier ASRock Easy RAID Installer ASRock Easy Driver Installer
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Hardware Monitor	<ul style="list-style-type: none"> CPU/Chassis temperature sensing CPU/Chassis Tachometer CPU/Chassis Quiet Fan (Auto adjust chassis fan speed by CPU temperature) CPU/Chassis Fan multi-speed control CASE OPEN detection Voltage monitoring: +12V, +5V, +3.3V, CPU Input Voltage, CPU Internal Voltages 		
OS	<ul style="list-style-type: none"> Microsoft® Windows® 8.1 32-bit / 8.1 64-bit / 8 32-bit / 8 64-bit / 7 32-bit / 7 64-bit 		
Certifications	<ul style="list-style-type: none"> FCC, CE, WHQL ErP/EuP ready (ErP/EuP ready power supply is required) 		
Accessories	<ul style="list-style-type: none"> Quick Installation Guide, Support CD, I/O Shield 2 x SATA Data Cables 1 x WiFi-802.11ac Module 2 x SMA WiFi Antenna Cables 2 x ASRock WiFi 2.4/5 GHz Antennas 1 x WiFi Module Bracket 2 x Screws for WiFi Module 		

Super Alloy Motherboard

Stable and Reliable



Pure black PCB appearance. The new Sapphire Black PCB represents rock-solid quality and gives the motherboard a more mysterious touch.



NexFET MOSFET
for Memory Power

The next generation NexFET MOSFETs provide lower $R_{ds(on)}$ 2.9 mΩ, delivering higher efficiency and lower temperature.



Power PAK

HOT



NexFET MOSFET

Cool



Premium Alloy Choke

The new generation alloy chokes effectively increase up to 90% saturation current and feature a highly magnetic and heat resistant design, making the motherboard more efficient, stable and reliable.

Saturation Current

Premium Alloy Choke

38A

90% Better!

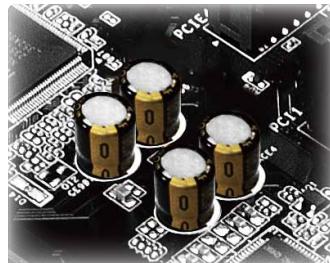
Ferrite Choke

20A



ELNA Audio Caps

Who says high quality audio is only available on high-end motherboards? ASRock applied ELNA audio capacitors on mainstream and entry-level motherboards! Compared with traditional solid caps, the leakage current of ELNA audio caps is merely 3uA. This is the key to reduce noise level significantly and satisfy even the pickiest audiophiles.



Noise Level

HIGH
Traditional Solid Caps



ASRock Cloud

ASRock Cloud* technology makes your mobile devices connect to your PC seamlessly! We offer a one-year subscription to Orbweb.ME Professional version, a personal cloud service which is \$49.99 per year. It allows you to get connected with your PC's files, music, photos, and video clips remotely with tablets anytime, anywhere. Plus an additional one-month upgrade to Orbweb.ME Ultimate package with Remote Desktop function.



* OrbWeb ME is provided by a third party. Restriction may apply and the offer is subject to change, termination or discontinuation by the third party without prior notice.

Please visit the website for further details: <http://www.asrock.com/feature/cloud/index.html>



ASRock APP Shop

We provide various apps and support software for users to download. You can easily optimize your system and keep your motherboard up to date with ASRock APP Shop.





802.11ac WiFi

This motherboard comes with an exclusive 802.11ac WiFi (5G WiFi) module that supports up to 433Mbps wireless networks and Bluetooth v4.0. Experience up to 144% speed boost compared to your old 802.11n WiFi!



Solid Capacitor Design

ASRock applied solid capacitors on this motherboard. With these solid caps, this motherboard is allowed to perform more stably and ensure longer lifetime.



3 Graphics Outputs

Complete with all three types of most used connectors! Packed with a D-Sub + DVI + HDMI combo. Plus the HDMI port supports Full HD 1080p Blu-ray (BD) playback.



Triple Monitor

This motherboard supports Triple Monitor. You may choose up to three display interfaces to connect monitors and use them simultaneously.



A-Tuning

A-Tuning is ASRock's multi purpose software suite with a new interface, more new features and improved utilities, including XFast RAM and a whole lot more.