Z170M-ITX/ac

Product Specifications

General	
	ASRock Super Alloy
	- Premium 45A Power Choke
	- Dual-Stack MOSFET (DSM)
Unique Feature	- High Density Glass Fabric PCB
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ASRock 802.11ac WiFi
	ASRock Full Spike Protection
	ASRock Live Update & APP Shop
	- Supports 6 th Generation Intel [®] Core™ i7/i5/i3/Pentium [®] /Celeron [®] Processors (Socket 1151)
	- Digi Power design
CPU	- 6 Power Phase design
	- Supports Intel® Turbo Boost 2.0 Technology
	- Supports Intel® K-Series unlocked CPUs
	- Supports ASRock BCLK Full-range Overclocking
Chipset	- Intel® Z170
•	- Dual Channel DDR4 Memory Technology
	- 2 x DDR4 DIMM Slots
	- Supports DDR4 3200+(OC)*/2933(OC)/2800(OC)/2400(OC)/2133 non-ECC, un-buffered memory
	- Max. capacity of system memory: 32GB**
	- Supports Intel® Extreme Memory Profile (XMP) 2.0
Memory	
	*Please refer to Memory Support List on ASRock's website for more information.
	*Due to the operating system limitation, the actual memory size may be less than 4GB for the reservation for system
	usage under Windows® 32-bit OS. For Windows® 64-bit OS with 64-bit CPU, there is no such limitation.
	- 128Mb AMI UEFI Legal BIOS with multilingual GUI support
	- ACPI 5.0 Compliant wake up events
BIOS	- SMBIOS 2.7 Support
	- CPU, GT_CPU, DRAM, PCH 1.0V, VCCIO, VPPM, VCCSA Voltage Multi-adjustment
Audio, Video and	Networking
	- 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 510/530
	- Pixel Shader 5.0, DirectX 12
	- Max. shared memory 1792MB
	- Three graphics output options: DVI-D, HDMI and DisplayPort 1.2
	- Supports Triple Monitor
	- Supports HDMI with max. resolution up to 4K x 2K (4096x2160) @ 24Hz / (3840x2160) @ 30Hz
Graphics	- Supports DVI-D with max. resolution up to 1920x1200 @ 60Hz
	- Supports DisplayPort 1.2 with max. resolution up to 4K x 2K (4096x2304) @ 60Hz
	- Supports Auto Lip Sync, Deep Color (12bpc), xvYCC and HBR (High Bit Rate Audio) with HDMI Port
	(Compliant HDMI monitor is required)
	- Supports Accelerated Media Codecs: HEVC, VP8, VP9
	- Supports HDCP with DVI-D, HDMI and DisplayPort 1.2 Ports - Supports Full HD 1080p Blu-ray (BD) playback with DVI-D, HDMI and DisplayPort 1.2 Ports
	- Supports 1 dil 110 1000p blu-lay (bb) playback with b vi-b, 110 wil and bisplayi of 1.21 of ts
	*Intel® HD Graphics Built-in Visuals and the VGA outputs can be supported only with processors which are GPU
	integrated.
	**Due to chipset limitation, the Blu-ray playback of Intel® HD Graphics is only supported under Windows® 8 / 8 64-bit / 7
	To 64-bit.
	***Intel [®] InTru™ 3D is only supported under Windows [®] 8 / 8 64-bit / 7 / 7 64-bit.
	- 7.1 CH HD Audio with Content Protection (Realtek ALC892 Audio Codec)*
	- Premium Blu-ray Audio support - Supports Surge Protection (ASRock Full Spike Protection)
Audio	- Supports Surge Protection (ASROCK Pull Spike Protection) - ELNA Audio Caps
	*To configure 7.1 CH HD Audio, it is required to use an HD front panel audio module and enable the multi-channel audio
	1 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 -
	feature through the audio driver.
	feature through the audio driver.
	- 1 x Intel [®] I219V (Gigabit LAN PHY 10/100/1000 Mb/s)

LAN	- Supports Wake-On-LAN
Wireless LAN	- Supports Lightning/ESD Protection (ASRock Full Spike Protection)
	- Supports LAN Cable Detection (on Realtek RTL8111H)
	- Supports Energy Efficient Ethernet 802.3az
	- Supports PXE - Supports IEEE 802.11a/b/g/n/ac
	- Supports Dual-Band (2.4/5 GHz)
	- Supports high speed wireless connections up to 433Mbps
	- Supports Bluetooth 4.0 / 3.0 + High speed class II
Expansion / Cor	nectivity
	- 1 x PCI Express 3.0 x16 Slot (PCIE1: x16 mode)*
	- 1 x Vertical Half-size Mini-PCI Express Slot: For WiFi + BT Module**
Slots	
	*Supports NVMe SSD as boot disks
	**This Mini-PCI Express Slot supports WiFi and mSATA devices.
	- 4 x SATA3 6.0 Gb/s Connectors, support RAID (RAID 0, RAID 1, RAID 5, RAID 10, Intel® Rapid Stora
	Technology 14 and Intel [®] Smart Response Technology), NCQ, AHCI and Hot Plug
Storage	- 1 x mSATA Connector (shared with Mini-PCI Express Slot), support RAID (RAID 0, RAID 1, RAID 5,
	RAID 10, Intel® Rapid Storage Technology 14 and Intel® Smart Response Technology), NCQ, AHCI at
	Hot Plug
	- 1 x TPM Header
	- 1 x Chassis Intrusion Header
	- 1 x CPU Fan Connector (4-pin) (Smart Fan Speed Control)
	- 1 x Chassis Fan Connector (4-pin) (Smart Fan Speed Control)
Connector	- 1 x 20 pin ATX Power Connector - 1 x 4 pin 12V Power Connector
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))
	- 1 x PS/2 Mouse/Keyboard Port - 1 x DVI-D Port
	- 1 x HDMI Port
	- 1 x DisplayPort 1.2
Rear Panel I/O	- 2 x USB 2.0 Ports (Supports ESD Protection (ASRock Full Spike Protection))
	- 6 x USB 3.0 Ports (Supports ESD Protection (ASRock Full Spike Protection))
	- 2 x RJ-45 LAN Ports with LED (ACT/LINK LED and SPEED LED)
Other Features	- HD Audio Jacks: Line in / Front Speaker / Microphone
Other reatures i	Software
	- ASRock A-Tuning
	- ASRock Disk Health Report
	- ASRock USB Key
Software and BIOS	- ASRock APP Charger
	- ASRock XFast LAN
	- ASRock XFast Root (Fast Boot (Past Boot Destart to LIEFI)*
	- ASRock Fast Boot (Fast Boot, Restart to UEFI)*
	- ASRock EZ Mode
	- ASRock Full HD UEFI
	- ASRock My Favorites in UEFI
	- ASRock Instant Flash
	- ASRock Internet Flash
	- ASRock Crashless BIOS - ASRock OMG (Online Management Guard)
	- ASRock UEFI System Browser
	- ASRock UEFI Tech Service
	- ASRock Dehumidifier
	- ASRock Easy RAID Installer
	- ASRock Easy RAID Installer - ASRock Easy Driver Installer
	- ASRock Easy Driver Installer
	- ASRock Easy Driver Installer *These utilities can be downloaded from ASRock Live Update & APP Shop.
Support CD	- ASRock Easy Driver Installer *These utilities can be downloaded from ASRock Live Update & APP Shop. - Drivers, Utilities, AntiVirus Software (Trial Version), Google Chrome Browser and Toolbar
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Support CD	- ASRock Easy Driver Installer *These utilities can be downloaded from ASRock Live Update & APP Shop. - Drivers, Utilities, AntiVirus Software (Trial Version), Google Chrome Browser and Toolbar
Support CD Accessories	- ASRock Easy Driver Installer *These utilities can be downloaded from ASRock Live Update & APP Shop. - Drivers, Utilities, AntiVirus Software (Trial Version), Google Chrome Browser and Toolbar - Quick Installation Guide, Support CD, I/O Shield - 2 x SATA Data Cables

	- 2 x ASRock WiFi 2.4/5 GHz Antennas
	- 1 x WiFi Module Bracket
	- 2 x Screws for WiFi Module
	- CPU/Chassis temperature sensing
	- CPU/Chassis Fan Tachometer
Hardware	- CPU/Chassis Quiet Fan (Auto adjust chassis fan speed by CPU temperature)
Monitor	- CPU/Chassis Fan multi-speed control
	- CASE OPEN detection
	- Voltage monitoring: +12V, +5V, +3.3V, CPU Vcore
Form Factor	- Mini-ITX Form Factor
	- Solid Capacitor design
	- Microsoft® Windows® 10 64-bit / 8.1 64-bit / 7 32-bit / 7 64-bit*
os	*To install Windows® 7 OS, a modified installation disk with xHCl drivers packed into the ISO file is required. Please
	check our User Manual for more detailed instructions.
	For the updated Windows® 10 driver, please visit ASRock's website for details.
Certifications	- FCC, CE, WHQL
	- ErP/EuP ready (ErP/EuP ready power supply is required)

Caution:
Please realize that there is a certain risk involved with overclocking, including adjusting the setting in the BIOS or using the third-party overclocking tools. Overclocking may affect your system stability, or even cause damage to the components and devices of your system. It should be done at your own risk and expense. We are not responsible for possible damage caused by overclocking.

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