



EMX-Q170KP

Intel® 7th Generation Core™ Processor Mini ITX Motherboard with Intel® Q170 Chipset

- > Intel® 7th Generation Core™ Processor (Max. TDP at 95W)
- > Intel® Q170 Chipset
- > 2 x 260-pin DDR4 2133MHz SO-DIMM supports up to 32GB
- > 1 x Intel® I219LM Gigabit Ethernet PHY
- > 1 x Intel® I211AT PCI-e Gigabit Ethernet
- > Realtek ALC892 HD Audio Codec
- > VGA, HDMI, DP, Dual channel 18/24-bits LVDS (Chrontel CH7511B eDP to LVDS)
- > 5 x SATA III, 1 x SATA III or 1 x mSATA III switch by BIOS
- > 1 x PCI-e x 16
- > 1 x Full Size Mini-PCI-e with mSATA Support (SATA III)
- > 1 x Half Size Mini PCI-e
- > 4 x USB 3.0, 8 x USB 2.0
- > 1 x PS/2 Keyboard or Mouse with Dual deck USB 2.0

+ Spec

System	
Processor	Intel® LGA1151 Socket Supports 6/7th Generation Core™ i7/ i5/ i3 & Pentium®/Celeron® Processors (Max. TDP at 95W)
System Chipset	Intel® Q170 Chipset
System Memory	2 x 260-pin DDR4 2133MHz SO-DIMM supports up to 32GB
I/O Chip	Nuvoton® NCT6106D
BIOS	AMI uEFI BIOS, 128Mbit SPI Flash ROM
Watchdog Timer	H/W Reset, 1sec. – 65535sec./min. 1sec. or 1min. step
H/W Status Monitor	CPU temperature monitoring Voltages monitoring CPU fan speed control
TPM	Onboard Infineon SLB9665 support TPM 2.0
Board	Mini ITX
Expansion	
Expansion	1 x PCI-e x 16 1 x Full Size Mini PCI-e Supports mSATA (by auto switch IC) 1 x Half Size Mini PCI-e
I/O	
USB	8 x USB 2.0 4 x USB 3.0
SATA	5 x SATA III, 1 x SATA III or 1 x mSATA III switch by BIOS selection
COM Port	5 x RS232 1 x RS232/422/485
DIO	1 x 8-bit GPIO
MIO	1 x PS/2 Keyboard or 1 x PS/2 Mouse
Other	Onboard Infineon SLB9665 support TPM 2.0
Display	
Chipset	Intel® 7th Generation CPU integrated
Resolution	VGA: 2048 x 1536 @ 60Hz HDMI: 3840 x 2160 @ 30Hz DP: 4096 x 2304 @ 60Hz
LVDS	Dual channel 18/24-bits LVDS (Chrontel CH7511B eDP to LVDS)
Multiple Display	Triple Display
Audio	
Chipset	Realtek ALC892 HD Audio Decoding Controller
Audio Interface	Mic-in, Line-out, Line-in
Audio Amplifier	6W Amplifier
Ethernet	
Chipset	1 x Intel® I219LM Gigabit Ethernet PHY, 1 x Intel® I211AT PCI-e Gigabit Ethernet
LAN Port	2 x RJ-45
Mechanical & Environmental	
Power Requirement	+12V/+5V/5VSB/+3.3V/-12V
ACPI	Single power ATX Support S0, S3, S4, S5
Power Type	AT/ATX
Operating Temp	0~60°C (32~140°F)
Storage Temp	-40~ 75°C
Operating Humidity	0%~90% relative humidity, non-condensing
Dimension (L x W)	6.69" x 6.69" (170mm x 170mm)
Weight	0.40 kg

+ Ordering

EMX-Q170KP-A1R
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