



EMX-Q87R

Intel® 4th Generation Core™ Refresh i7/i5/i3 Mini ITX Motherboard with Intel® Q87 Express Chipset

- > Intel® LGA1150 Socket Supports 4th Generation Core™ Refresh i7/i5/i3, Pentium® and Celeron® Processors (Max. TDP at 95W)
- > Intel® Q87 Express Chipset
- > 2 x 204-pin DDR3 1333/1600 MHz SO-DIMM supports up to 16 GB
- > VGA, HDMI, DP, Dual-channel 18/24-bit LVDS
- > 1 x Intel® I217LM PCIe Gigabit Ethernet PHY
- > 1 x Intel® I211AT PCIe Gigabit Ethernet
- > Realtek ALC892 Supports 5.1-CH HD Audio Codec
- > TI TPA2012D2RTJT Stereo Class-D 2W x 2 Audio Amplifier
- > 1 x Mini PCIe Supported mSATA, 1 x PCIe x 16, 1 x CFAST
- > 4 x SATA III, 6 x USB 3.0, 6 x USB 2.0
- > 3 x RS-232, 1 x RS-232/422/485, 1 x 8-bit GPIO
- > Supports DMI 3.0, SATA 6Gbps

+ Spec

System	
Processor	Intel® LGA1150 Socket Supports 4th Generation Core™ Refresh i7/i5/i3, Pentium® and Celeron® Processors (Max. TDP at 95W)
System Chipset	Intel® Q87 Express Chipset
System Memory	2 x 204-pin DDR3 1333/1600 MHz SO-DIMM supports up to 16 GB
I/O Chip	Nuvoton NTC6106D
BIOS	AMI uEFI BIOS, 64Mbit SPI Flash ROM; iAMT 9.0 Supported
Watchdog Timer	H/W Reset: 1sec. ~ 65535sec./min. and 1sec. or 1min./step
H/W Status Monitor	Monitoring System Temperature and Voltage with Auto Throttling Control
Expansion	
Expansion	1 x PCIe x 16 1 x Mini PCIe Supports mSATA (Switch Through Jumper) 1 x CFAST
I/O	
USB	6 x USB 3.0 6 x USB 2.0
SATA	4 x SATA III
Com Port	3 x RS-232 1 x RS-232/422/485
Other	TPM 1.2 SLB9635 (optional)
DIO	1 x 8-bit GPIO
MIO	1 x PS/2 Keyboard 1 x PS/2 Mouse
Display	
Chipset	Intel® 4th Generation CPU integrated
Resolution	VGA: 1920 x 1200 @ 60Hz HDMI: 4096 x 2160 @ 24Hz LVDS: 1920 x 1080 @ 60Hz DP: 3840 x 2160 @ 60Hz
Multiple Display	Triple Display
Audio	
Chipset	Realtek ALC892 supports 5.1-CH
Audio Interface	Mic-in, Line-out, Line-in
Audio Amplifier	TI TPA2012D2RTJT Stereo Class-D 2W x 2 Audio Amplifier
Ethernet	
Chipset	1 x Intel® I217LM 1 x Intel® I211AT
Ethernet Interface	10/100/1000 Base-Tx GbE compatible
Lan Port	2 x RJ-45
Mechanical & Environmental	
Power Requirement	+12V/+5V/5Vsb/+3.3V/-12V
Power Type	AT/ATX
Operating Temp	0°C ~ 60°C (32°F ~ 140°F)
Storage Temp	0°C ~ 60°C (32°F ~ 140°F)
Operating Humidity	0% ~ 90% Relative Humidity, Non-condensing
Dimension (L x W)	6.69" x 6.69" (170mm x 170mm)
Weight	1.03lbs (0.47kg)

+ Ordering

EMX-Q87R-A1R
Intel® 4th Generation Core™ Refresh i7/i5/i3 Mini ITX Motherboard with Intel® Q87 Express Chipset