



## ESM-QM87R

4th Gen Intel Core™ Processor i7/i5/i3 Type6  
COMe Basic Module with Intel® QM87 Chipset

- > Onboard 4th Gen Intel Core™ i7/i5/i3 BGA Processor
- > Intel® QM87 Express Chipset
- > Two 204-pin SODIMM Up to 16GB DDR3L 1333/1600 SDRAM
- > Dual-channel 18/24-bit LVDS, VGA, DP/HDMI/DVI, eDP Option
- > Intel® High Definition Audio
- > Intel® I217LM Gigabit Ethernet
- > 7 PCIe1, 1 PCIe16, 4 SATA, 8 USB 2.0, 4 USB 3.0
- > 8-bit GPIO, SMBus, LPC
- > +9 ~ +19V Wide Range Power Input
- > Type 6 Pin-out

**+ Spec**

System	
<b>Processor</b>	4th Gen Intel®Core™ i7-4700EQ 4-Core 3.4GHz processor 4th Gen Intel®Core™ i5-4422E, 2-Core, 1.8GHz processor 4th Gen Intel®Core™ i3-4110E, 2-Core, 2.6GHz processor
<b>System Chipset</b>	Intel® QM87 Express Chipset
<b>System Memory</b>	2 x 204-Pin DDR3 1333/1600MHz SO-DIMMUp to 16 GB or 204-Pin DDR3L 1600MHz SO-DIMMUp to 16 GB
<b>I/O Chip</b>	EC ITE IT8518E
<b>BIOS</b>	AMI 64Mbit SPI BIOS
<b>TPM</b>	TPM 2.0
Expansion	
<b>Expansion</b>	7 x PCIe1 1 x PCIe16
I/O	
<b>USB</b>	8 x USB 2.0 1 x USB 3.0
<b>SATA</b>	2 x SATA II 2 x SATA III
<b>DIO</b>	1 x8bit GPIO
<b>MIO</b>	1 x SMBus 1 x LPC
Display	
<b>Chipset</b>	Intel® QM87 Chipset Integrated
<b>Resolution</b>	HDMI:Max. resolution 4000x2000@ 60Hz LVDS:Max. resolution 1920x1080@ 60Hz
<b>LVDS</b>	CH7511B(eDP to LVDS)
<b>Multiple Display</b>	DDI+VGA DDI+LVDS LVDS+VGA
<b>DDI</b>	HDMI DVI DisplayPort
Audio	
<b>Chipset</b>	Intel®QM87 integrated
<b>Audio Interface</b>	Intel®High Definition Audio
Ethernet	
<b>Chipset</b>	1 x Intel®I217LM
<b>Ethernet Interface</b>	10/100/1000 Base-Tx GbE compatible
Mechanical & Environmental	
<b>Power Requirement</b>	+9V ~ +19V
<b>ACPI</b>	Single Power ATX Support S0, S3, S4, S5 ACPI3.0 Compliant
<b>Power Type</b>	AT/ATX
<b>Operating Temp</b>	0°C ~ 60°C (32°F ~ 140°F)
<b>Storage Temp</b>	-40°C ~ 75°C (-40°F ~ 167°F)
<b>Operating Humidity</b>	0% ~ 90% Relative Humidity, Non-condensing
<b>Dimension (L x W)</b>	5" x 3.7" (125mm x 95mm)
Certifications	
<b>Certification Information</b>	CE FCC Class B
Software Support	



**OS Information**

Win 8  
Win 7  
Linux  
Windows Server Standard

**+ Ordering**

EEV-EX14-A2R  
mATX Ev. Board for COMe Type 6 A1.1

ESM-QM87-4700-A1R  
SOM-COMe W/QM87/i3-4102E LVDS/VGA

ESM-QM87-4400-A1R  
Intel® QM87 COM Express Module Type 6 on board -i5-4400E CPU

ESM-QM87-4102-A1R  
Intel® QM87 COM Express Module Type 6 on board7-i3-4102E CPU

ESM-QM87R-4110-A1R  
Intel® QM87 COM Express Module Type 6 on board7-i3-4102E CPU

EEV-EX62-A1R  
COMe Type 6 to Type 2 Adapter