



## ECM-QM87R

4th Gen Intel®Core™ Processor i5/i3 3.5" Micro Module with Intel® QM87 Chipset

- > Onboard 4th Gen Intel®Core™ i5/i3 BGA Processor
- > One 204-pin DDR3L SODIMM Up to 8GB DDR3 1333/ 1600 SDRAM
- > Dual-channel 18/ 24-bit LVDS, HDMI, VGA
- > Triple Display
- > 2 SATA III, 1 Mini PCIe Card (Support mSATA)
- > 6 USB 3.0, 2 USB 2.0, 2 COM, 8-bit DIO iAMT 9.0

### + Spec

| System                     |  |
|----------------------------|--|
| <b>Processor</b>           | 4th Gen Intel® Core™ i5-4422E, 2-Core, 1.8GHz processor<br>4th Gen Intel® Core™ i3-4110E, 2-Core, 2.6GHz processor   |
| <b>System Chipset</b>      | Intel® QM87 Express Chipset  |
| <b>System Memory</b>       | 1 x204-Pin DDR3L 1333MHz SO-DIMM up to 8 GB<br>or 1 x204-Pin DDR3 1600MHz SO-DIMM up to 8 GB   |
| <b>I/O Chip</b>            | EC ITE IT8518E   |
| <b>BIOS</b>                | AMI uEFI BIOS, 128Mbit SPI Flash ROM   |
| <b>Watchdog Timer</b>      | H/W Reset: 1sec. ~ 65535sec./min. and 1sec. or 1min./step  |
| <b>H/W Status Monitor</b>  | Monitoring System Temperature and Voltage with Auto Throttling Control   |
| Expansion                  |  |
| <b>Expansion</b>           | 1 x Mini PCIe Supports mSATA   |
| Storage                    |  |
| <b>Storage</b>             | 1 x mSATA<br>Supported from Mini PCIe  |
| I/O                        |  |
| <b>USB</b>                 | 2 x USB 2.0<br>6 x USB 3.0   |
| <b>SATA</b>                | 2 x SATA III   |
| <b>COM Port</b>            | 1 x RS-232/422/485<br>1 x RS-232   |
| <b>DIO</b>                 | 1 x 8bit GPIO  |
| <b>MIO</b>                 | 1 x LPC  |
| Display                    |  |
| <b>Chipset</b>             | Intel® QM87 Chipset Integrated<br>Supports triple display  |
| <b>Resolution</b>          | VGA:Max. resolution 1920x1200@ 60Hz<br>HDMI:Max. resolution 3840x2160@ 24Hz<br>LVDS:Max. resolution 1920x1080@ 60Hz<br><br>VGA + LVDS + HDMI<br>Dual-channel 18/ 24-bit LVDS |
| Audio                      |  |
| <b>Chipset</b>             | Realtek ALC892<br>supports 5.1-CH  |
| <b>Audio Interface</b>     | Mic-In, Line-In and Line-Out   |
| Ethernet                   |  |
| <b>Chipset</b>             | 1 x Intel® I210AT<br>1 x Intel® I217LM   |
| <b>Ethernet Interface</b>  | 10/100/1000 Base-Tx GbE compatible   |
| <b>LAN Port</b>            | 2 x RJ-45  |
| Mechanical & Environmental |  |
| <b>Power Requirement</b>   | +12V   |
| <b>ACPI</b>                | Single Power ATX Support S0, S3, S4, S5<br>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>   | 5.7" x 4" (146mm x 101mm)  |
| <b>Weight</b>              | 0.44lbs (0.2kg)  |
| Certifications             |  |



|                                  |                         |
|----------------------------------|-------------------------|
| <b>Certification Information</b> | CE<br>FCC Class B       |
| <b>Software Support</b>          |                         |
| <b>OS Information</b>            | Win 8<br>Win 7<br>Linux |

**+** Ordering

ECM-QM87R-4422-A1R  
3.5" Wi5 4422E/QM87R/6USB3.0/2COM/A1

ECM-QM87R-4110-A1R  
3.5" Wi3 4110E/QM87R/6USB3.0/2COM/A1