



Features

- Intel® Shark Bay Platform
- 1 x 204-pin DDR3 SODIMM Up to 8GB 1333/ 1600 SDRAM
- Dual-channel 18/ 24-bit LVDS, HDMI, VGA
- Realtek ALC892 Supports 7.1-CH Audio
- Dual Gigabit Ethernet
- 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

Specifications

System

• CPU	Intel® Haswell BGA Processor (25 ~ 47W CPU)
• BIOS	AMI uEFI BIOS, 64/ 128 Mbit SPI Flash ROM iAMT 9.0 Supported
• System Chipset	Intel® Lynx Point
• I/O Chip	EC (IT8518E)
• System Memory	One 204-pin DDR3 SODIMM Socket Supports Up to 8GB DDR3 1333/ 1600 SDRAM
• Watchdog Timer	Reset: 1sec. ~ 65536sec./min. and 1sec. or 1min./step
• H/W Status Monitor	Monitoring System Temperature, Voltage with Auto Throttling Control
• Expansion	1 x Mini PCIe (mSATA Supported)

I/O

• MIO	1 x RS-232, 1 x RS-232/ 422/ 485, LPC, 2 x SATA III
• USB	6 x USB 3.0, 2 x USB 2.0
• DIO	4-bit GPI, 4-bit GPO

Display

• Chipset	Intel® Lynx Point
• Resolution	VGA Mode: 1920 x 2000 @ 60Hz HDMI Mode: 4096 x 2304 @ 24Hz LVDS Mode: 1920 x 1200 @ 60Hz
• Multiple Display	VGA + LVDS + HDMI
• LCD Interface	Dual-channel 18/ 24-bit LVDS

Audio

• HD Codec	Realtek ALC892 Supports 7.1-CH Audio
• Audio Interface	Mic-in, Line-in, Line-out

Ethernet

• LAN Chip	1 x Intel® I210AT Gigabit Ethernet Controller 1 x Intel® I217LM Gigabit Ethernet PHY
• Ethernet Interface	10/ 100/ 1000 Base-Tx Gigabit Ethernet Compatible

Mechanical & Environmental

• Power Requirement	+12V
• ACPI	Single Power ATX Support S0, S1, S3, S4, S5 ACPI 3.0 Compliant
• Power Type	AT/ ATX
• Operating Temperature	0 ~ 60°C (32 ~ 140°F)
• Storage Temperature	-40 ~ 75°C (-40 ~ 167°F)
• Operating Humidity	0%~90% Relative Humidity, Non-condensing
• Size (L x W)	5.7" x 4" (146mm x 101mm)
• Weight	0.44lbs (0.2kg)

Ordering Information

- **ECM-QM87**
Intel® Haswell Processors 3.5" Micro Module with Intel® Lynx Point Chipset
- **AUX-056**
USB 3.0 Daughter Board