

Main Features

- Intel® 4th generation Core™ processor
- Mobile Intel® QM87 chipset
- Support PICMG COM.0 Rev. 2.1 Type 6 pin-outs
- Support Dual channel ECC-DDR3L/ SO-DIMMs 1333/1600MHz up to 16GB
- Support PCIe x16, 7x PCIe x 1, 4x USB3.0/ 8x USB2.0, 2x SATA3.0/ 2x SATA2.0 and GbE
- Up to 3x independent displays, VGA, eDP/ LVDS, DVI, HDMI, DisplayPort
- Dimension 95 x 125mm² (W x L)

Product Overview

The ICES 670 is a COM Express Type 6-pinouts Basic module featuring Intel® Lynx-Point PCH chipset supports Intel® 4th generation Intel® Core™ processors (Haswell/ Shark Bay mobile) with Dual ECC-DDR3 SO-DIMM socket up to 16GB DDR3L 1333/1600MHz SDRAM. The ICES 670 integrated Intel® GT1/ GT2/ GT3 graphics engines with DX11.1 support or expands via PCI Express Graphic 1x 16 lanes and support three DDI (Digital Display Interface) to follow the standard of PICMG COM.0 Rev. 2.0 specification. It allows type 6-pinout Carrier board to implement HDMI, DVI, Display Port, eDP and legacy VGA, single channel 18-/ 24-bits LVDS interface. The high performance ICES 670 COM Express Basic Module supports 4x USB3.0/ 8x USB2.0, 2x SATA3.0/ 2x SATA2.0 and 7x PCIe x1 lanes through our NEXCOM designed ICES 8060 as well as customized solution for your embedded projects.

Specifications

CPU Support

- Support Intel® BGA 1364, 4th generation Intel® Core™ processors (Haswell-M/ Shark Bay-MB)

Main Memory

- Dual ECC-DDR3L/ SO-DIMMs, support 1333/1600MHz memory up to 16GB

Platform Control Hub

- Intel® 8 series (Lynx Point-M) PCH chipset

BIOS

- AMI System UEFI BIOS
- Plug and play support
- Advanced power management and advanced configuration & power interface support

Display

- Intel® GT1/ GT2/ GT3 integrated graphics processing unit (iGPU)
- One PCI Express x16 (Gen. 3.0) Lane down to the carried board
- Supports VGA and eDP/ LVDS interface
- 3x DDI (Digital Display Interface) supports HDMI/ DVI, DP/ eDP interfaces

Audio

- HD audio interface

On-board LAN

- Intel® Clarkville(I217) Gigabit Ethernet, support next generation vPro/ iAMT
- Support PXE boot from LAN, wake on LAN function
- Signals down to I/O board

COM Express Connector

- AB
VGA/ LVDS/ 8x USB2.0 / HD Audio/ 4x SATA/ GbE/ GPIO/ LPC bus,
1x PCIe x4/ 3x PCIe x1/ SMBus (I2C)/ SPI BIOS /SPK out
- CD
PCIex16/ 3x DDI /4x USB 3.0

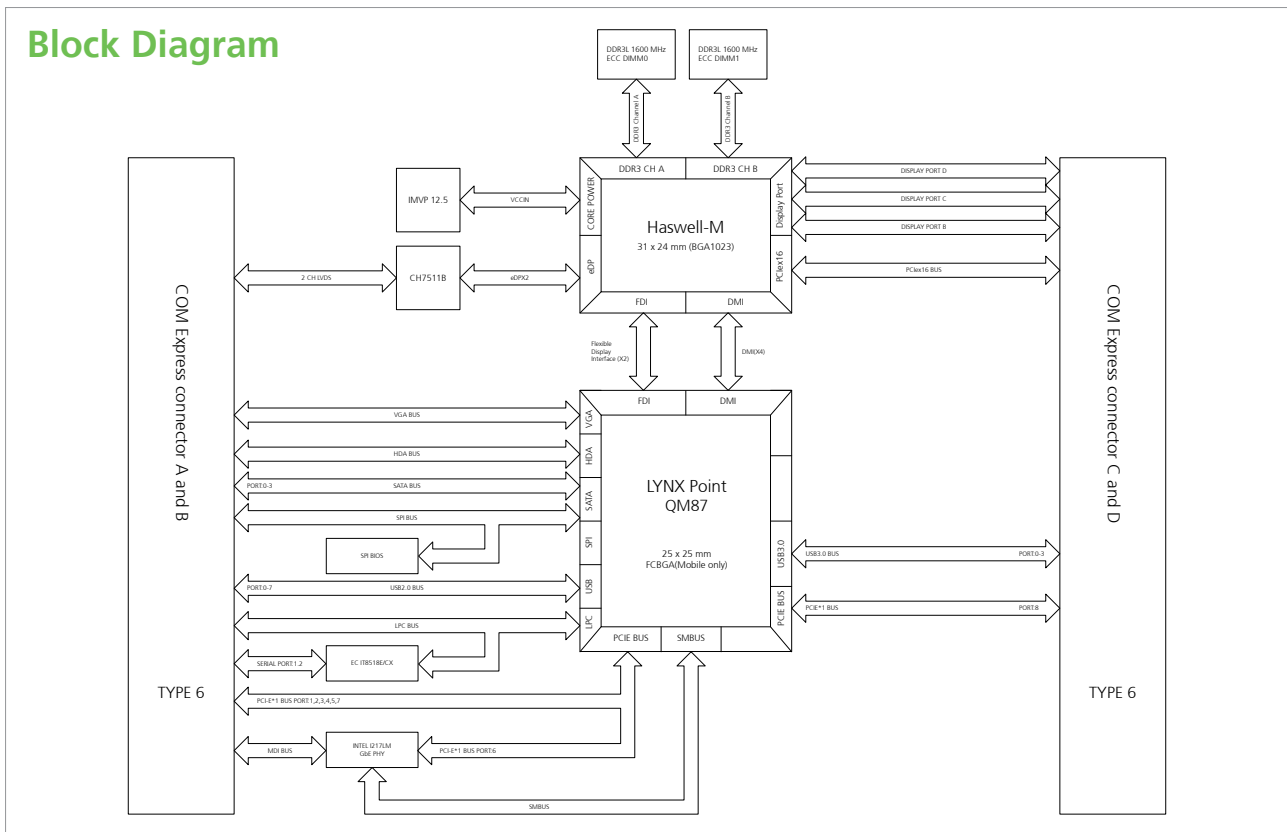
Power Requirements

- +12V, +5VSB, +3.3V RTC power

Dimensions

- 95mm (W) x 125mm (L)

Block Diagram



Environment

- Board level operating temperatures: -15°C to 60°C
- Storage temperatures: -20°C to 80°C
- Relative humidity:
 - 10% to 90% (operating, non-condensing)
 - 5% to 95% (non-operating, non-condensing)

Certifications

- Meet CE
- FCC Class A

Ordering Information

• ICES 670 (P/N: 10K00067000X0)

COM Express Type 6, Basic Module, onboard 4th Generation Intel® Core™ Processors with ECC DDR3L/ 2x SO-DIMMs, Mobile Intel® QM87 Express Chipset