

## Main Features

- Intel® 3rd generation Intel® Embedded Core™ rPGA988 embedded processors family
- Intel® QM77 PCH (HM76) chipset support PICMG COM.0 Rev. 2.0 Type 2, pin-outs
- Support two DDR3 SO-DIMMs 1333/1600 non-ECC up to 16GB
- Support PCIe16 (Gen3.0), 5 x PCIe1, 8 x USB2.0, 2 x SATA3.0/2 x SATA2.0 and 1 x GbE
- Support VGA, dual channels 18/24-bit LVDS and optional 1 x DDI/SDVO by PEG
- Dimension: 95mm (mm) x 125mm (L)

## Product Overview

The ICES 268 is a Type 2 COM Express Basic Module featuring Intel® QM77 PCH (option HM76) chipset supports Intel® 3rd generation Intel® Core™ i7/i5/i3 rPGA988 processors up to i7-3610QE (4 x 2.3GHz/max. TDP 45W) with two DDR3 SO-DIMMs 1333/1600MHz non-ECC up to 16GB.

The 3rd Generation Core i7/i5/i3 processors integrated with Intel® HD graphics with DX11 support one PCIe16 (Gen 3.0) to carrier board. The optional 1 x DDI interfaces port B, allows ICES 268 implement SDVO to HDMI, DVI, DP port by add-in EBK-A2HDMI. The high performance ICES 268 COM Express Basic Module supports 4 x SATA3.0/2.0, 8 x USB2.0, 5 x PCIe1 lanes and 1 x Gigabit Ethernet through the carrier board; NEXCOM is offering standard Type 2 carrier board, ICEB 8050C as well as hardware-ready evaluation starter-kit, ICEK 8050C-T2 build-in 10.4" LCD panel, Flex-ATX power supply to help device makers and equipment builders may evaluate full set of I/O function and add-in cards at early development stage.

## Specifications

### CPU Support

- Support Intel® 3rd generation Core™ i7/i5/i3 embedded rPGA988 processors
  - Intel® Core™ i7-3610QE (4 x 2.3GHz/6MB cache/Max. TDP 45W)
  - Intel® Core™ i7-3610ME (2 x 2.7GHz/3MB cache/Max. TDP 35W)
  - Intel® Celeron® B810 (2 x 1.6GHz/2MB cache/Max. TDP 35W)

### Main Memory

- Two DDR3 SO-DIMMs, 1333/1600 MHz SDRAM non-ECC up to 16GB

### Platform Control Hub

- Intel® QM77 PCH (option HM76) chipset

### BIOS

- AMI UEFI System BIOS
- Plug and play support
- Advanced Power Management and ACPI support

### Display

- Intel® HD graphics with DX11 support and supports Triple independent displays
- One PCI Express x16 Lane (Gen 3.0) down to the carried board
- Supports VGA, single/dual channels LVDS 18/24-bit interfaces
- Optional 1 x DDI port B support HDMI, DVI, DisplayPort and SDVO by PEG with EBK-A2HDMI

### Audio

- HD audio interface

### On-board LAN

- Intel® 82579LM Gigabit Ethernet, support iAMT 8.0 (supported by QM77 only)
- Support boot from LAN, wake on LAN function
- Signals down to I/O board

### COM Express Connector

- AB  
VGA/LVDS/8 x USB2.0, HD Audio/2 x SATA3.0, 2 x SATA 2.0/GbE/GPIO/LPC bus/5 x PCIe1/SMBus (I2C)/SPI BIOS/SPK out
- CD  
PCIe16 (Gen. 3.0)/PCI (v2.3)/IDE

### Power Requirements

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

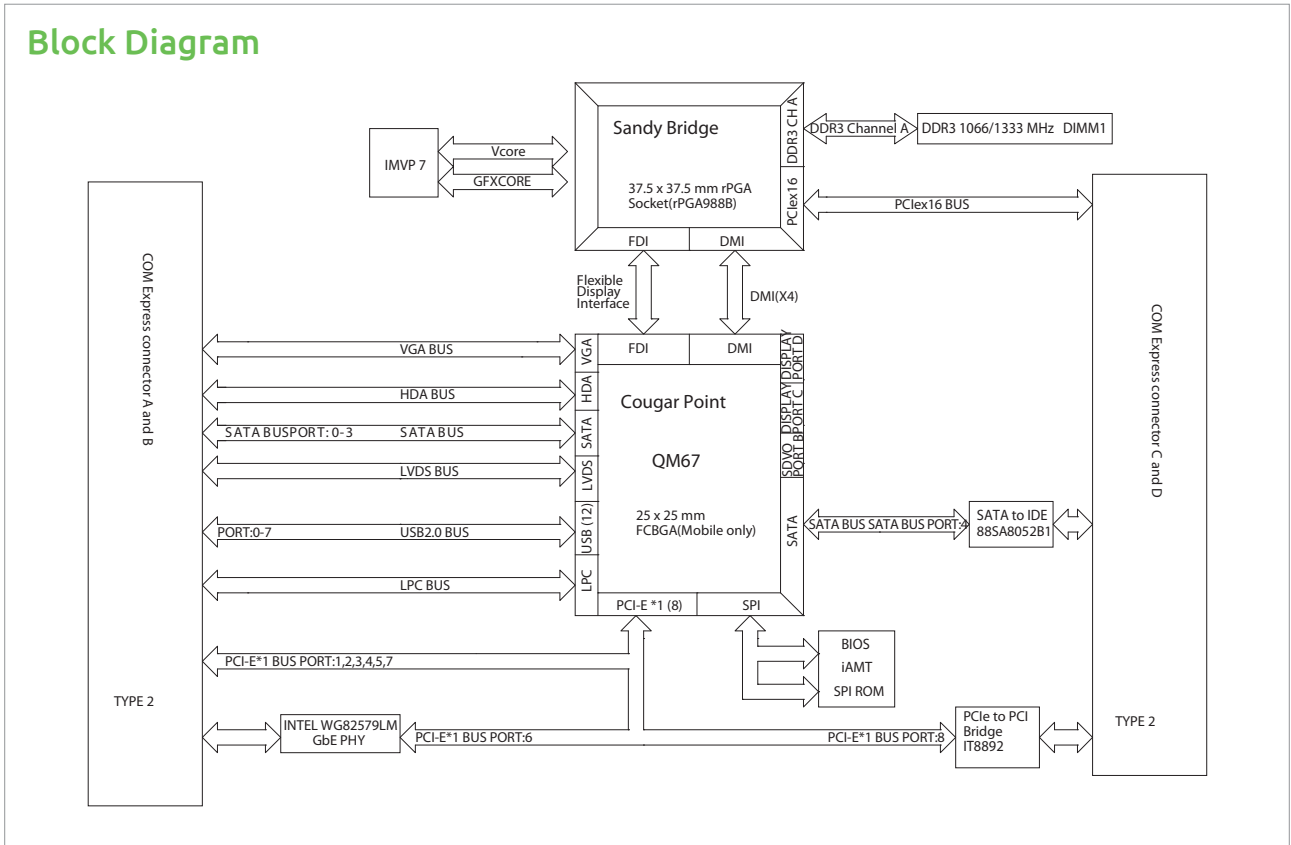
### Dimensions

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

### Environment

- Board level operating temperatures: -15°C to 60°C
- Storage temperatures: -20°C to 80°C

## Block Diagram



- Relative humidity:
- 10% to 90% (operating, non-condensing)
- 5% to 95% (non-operating, non-condensing)

### Certifications

- Meet CE
- FCC Class A

## Ordering Information

- ♦ **ICES 268 (P/N: 10K00026800X0)**  
COM Express type 2, basic Module QM77 support Intel® 3rd Generation Core™ rPGA988 embedded processors, non-ECC DDR3/2 x SO-DIMMS
- ♦ **ICES 268 F- kit (P/N: 10K00026801X0)**  
COM Express Active fan kits with heat-spreader, heat-sink and cooling fan for ICES268
- ♦ **ICEB 8050C (P/N: 10KB0805001X0)**  
COM Express Type 2, COM.0 Rev. 2.0 Evaluation CRB, VGA/LVDS/8 x USB2.0/2 x COM/GbE/LPT/5.1 HD/SPDIF, CF/IDE/mSATA/CFast/PClex16/PClex4/PClex1/PCI/mPCIe, ATX power input