



Main Features

- 3rd generation Intel® Embedded Core™ rPGA988 embedded processors family
- Intel® QM77 PCH (HM76) chipset support PICMG COM.0 Rev. 2.0 Type 6 pin-outs
- Support two DDR3 SO-DIMMs 1333/1600 non-ECC up to 16GB
- Support PCIe16 (Gen3.0) 7 x PCIe1, 4 x USB3.0/8 x USB2.0, 2 x SATA3.0/2 x SATA2.0 and GbE
- Up to 3 x DDI (DP/HDMI/DVI) multiple displays, VGA, dual channels 18/24-bit LVDS
- Dimension: 95mm (W) x 125mm (L)

Product Overview

The ICES 667 is a Type 6 COM Express Basic Module featuring Intel® QM77 PCH (option HM76) chipset supports 3rd generation Intel® Core™ i7/i5/i3 rPGA988 embedded 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 Intel® Core™ i7/i5/i3 processors integrated with Intel® HD graphics with DX11 support one PCIe16 (Gen. 3.0) to carrier board. The Three DDI interfaces allows ICES 667 implement HDMI, DVI, Display Port, SDVO on Customer Solution Board besides VGA, LVDS interface. The high performance ICES 667 COM Express Module supports 4 x SATA2.0/3.0, 12 x USB2.0/3.0 and 7 x PCIe1 lanes through the carrier board; NEXCOM is offering standard Type 6 carrier board, ICEB 8060 to help device makers and equipment builders to evaluate full set of I/O function and add-on cards at early development stage.

Specifications

CPU Support

- Support 3rd generation Intel® 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
- 3 x DDI supports HDMI, DVI, DisplayPort and SDVO (only by Port B/DDI #1)

Audio

- HD audio interface

On-board LAN

- Intel® 82579LM Gigabit Ethernet, support iAMT 8.0 (supported with 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/4 x SATA2.0/3.0, GbE/GPIO/LPC bus, 1 x PCIe4/2 x PCIe1/SMBus (I2C)/SPI BIOS/SPK out
- CD
PCIe16(Gen. 3.0)/3 x DDI/4 x USB3.0/PCIe1

Power Requirements

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

Dimensions

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

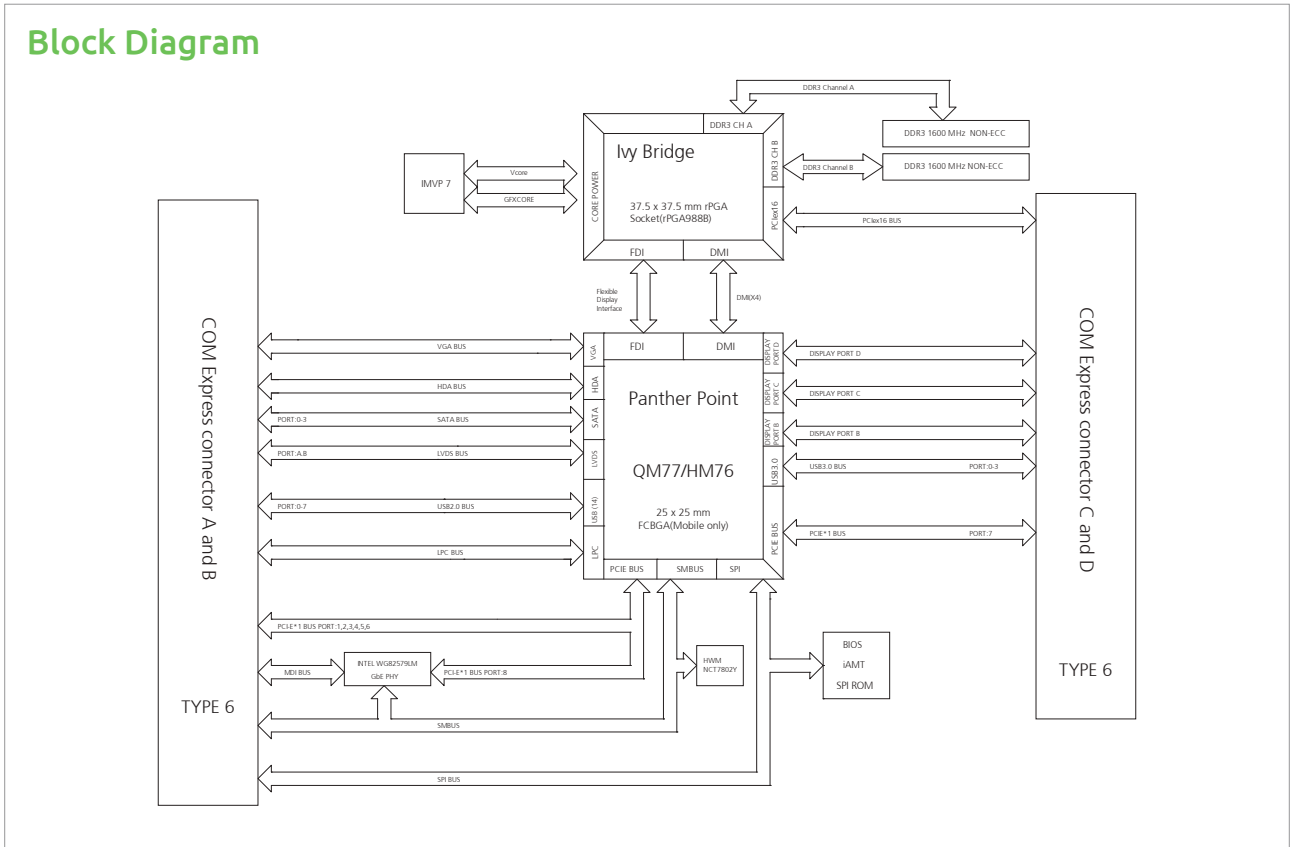
Environment

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

Certifications

- Meet CE

Block Diagram



- FCC Class A

Ordering Information

- ♦ **ICES 667 (P/N: 10K00066700X0)**
COM Express type 6, basic Module QM77 support 3rd Generation Intel® Core™ rPGA988 embedded processors, non-ECC DDR3/2 x SO-DIMMs
- ♦ **ICES 667F-kit (P/N: 10K00066702X0)**
COM Active fan kits with heat-spreader, heat-sink and cooling fan for ICES 667
- ♦ **ICEB 8060 (P/N: 10KB086000X0)**
COM Express type 6, COM.0 Rev. 2.0 Evaluation Carrier Board, 3 x DDI/ VGA/LVDS/4 x USB3.0/8 x USB2.0/6 x COM/2 x GbE/5.1HD, SPDIF/2 x SATA3.0/mSATA/CFast/PCle16/PCle4/2 x PCle1/mPCle, ATX power input