



Main Features

- Intel® 2nd generation Intel® Core™ processor family
- Intel® QM67 PCH chipset
- 1 x DDR3 SO-DIMM socket support non-ECC DDR3 800/1066/1333MHz up to 8GB
- Support SDVO
- Type 2 COM Express 2.0 module support 6 Express lanes, 32 bit PCI interface, one IDE and Gigabit LAN

Product Overview

The ICES 267S is a COM Express Type 2 basic module featuring Intel® QM67 PCH chipset, and supports 2nd generation Intel® Core™ processor i5-2515E/i7-2715QE. ICES 267S gears with DDR3 SO-DIMM memory socket up to 8GB DDR3 800/1066/1333MHz SDRAM single channel with un-buffered non-ECC support.

The ICES 267S integrated with Intel® HD graphics offers display expansion via SDVO to carrier board. In addition, it also supports other display types include LFP or dual channel LVDS. The high performance ICES 267S COM Express module provides 4 x SATA, 8 x USB2.0 and 6 PCIe lanes through the carrier board. It is compatible with ICEB 8050 carrier board and in-house designed ICES 267S F-kits from NEXCOM.

Specifications

CPU Support

- Support 2nd generation Intel® Core™ processor family, FCBGA 1023

Processor	i7-2715QE	i7-2610UE	i5-2515E	Celeron® B810E	Celeron® 847E
# of Core	4	2	2	2	2
Clock Speed	2.1GHz	1.5GHz	2.5GHz	1.6GHz	1.1GHz
Max. TDP	45W	17W	35W	35W	11W

Main Memory

- One DDR3 800/1066/1333MHz SO-DIMM, up to 8GB

Platform Control Hub

- Intel® QM67 (option HM65) PCH chipset

BIOS

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

Display

- Intel® HD graphics with DX11 support
- Drive a standard progressive scan analog monitor resolution up to 2048 x 1536@60Hz
- LFP LVDS interface to support 18/24-bit & single/dual channel interface

Audio

- HD audio interface

On-board LAN

- Intel® 82579LM Gigabit Ethernet, support iAMT 7.0 (supported with QM67 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/3 x SATA/LAN/GPIO/LPC bus
One PCIe4/two PCIe1/SMBus (I2C)/SPI BIOS
- CD
IDE/PCI/SDVO

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

The diagram illustrates the system architecture, showing the connection between the IMVP 7, Sandy Bridge, and Cougar Point components, and their interfaces to various system components.

IMVP 7: Connected to the Sandy Bridge via Vcore and VcoreG signals.

Sandy Bridge: A 37.5 x 37.5 mm rPGA Socket (rPGA988B). It connects to the Cougar Point via FDI and DMI (X4) interfaces. It also connects to DDR3 CH A (DDR3 1066/1333 MHz DIMM1) via DDR3 Channel A and to PCIe x16.

Cougar Point: A 25 x 25 mm FCBGA (Mobile only) QM67. It connects to the Sandy Bridge via FDI and DMI (X4) interfaces. It also connects to the IMVP 7 via Vcore and VcoreG signals. It connects to various system components via its ports:

- VGA BUS:** Connected to the IMVP 7.
- HDA BUS:** Connected to the IMVP 7.
- SATA BUS PORT:0-3:** Connected to the IMVP 7.
- LVDS BUS:** Connected to the IMVP 7.
- PORT:0-7:** Connected to the IMVP 7.
- USB 2.0 BUS:** Connected to the IMVP 7.
- LPC BUS:** Connected to the IMVP 7.
- PCI-E *1 (8):** Connected to the IMVP 7.
- SPI:** Connected to the IMVP 7.
- SDVO DISPLAY/PORT B:** Connected to the IMVP 7.
- SATA BUS:** Connected to the IMVP 7.
- SATA BUS PORT:4:** Connected to the IMVP 7.
- BIOS IAMT SPI ROM:** Connected to the IMVP 7.
- PCI-E *1 BUS PORT:1,2,3,4,5,7:** Connected to the IMVP 7.
- PCI-E *1 BUS PORT:6:** Connected to the IMVP 7.
- PCI-E *1 BUS PORT:8:** Connected to the IMVP 7.

System Components:

- IMVP 7:** Connected to the Sandy Bridge via Vcore and VcoreG signals.
- DDR3 CH A:** Connected to the Sandy Bridge via DDR3 Channel A.
- DDR3 1066/1333 MHz DIMM1:** Connected to the Sandy Bridge via DDR3 Channel A.
- PCIe x16:** Connected to the Sandy Bridge.
- COM Express connector C and D:** Connected to the IMVP 7.
- TYPE 2:** Connected to the IMVP 7.
- SDVO DISPLAY/PORT B:** Connected to the IMVP 7.
- SATA to IDE Marvell 88SA8052B1:** Connected to the IMVP 7.
- BIOS IAMT SPI ROM:** Connected to the IMVP 7.
- PCI-E *1 BUS PORT:1,2,3,4,5,7:** Connected to the IMVP 7.
- PCI-E *1 BUS PORT:6:** Connected to the IMVP 7.
- PCI-E *1 BUS PORT:8:** Connected to the IMVP 7.
- INTEL WG82579LM GbE PHY:** Connected to the IMVP 7.
- PCIe to PCI Bridge IT8892:** Connected to the IMVP 7.

- ♦ CE approval
- ♦ FCC Class A

Active Fan Kits with heat-spreader, heat-sink and Cooling fan in-house designed for ICES267S