

## 4th Generation Intel® Core™ Processor with Mobile Intel® QM87 Chipset Evaluation Kit Based on Small Form Factor

### Evaluation Kit Intelligent Systems



#### Changing the standards for intelligent applications

The 4th Generation Intel® Core™ Processor and Mobile Intel® QM87 Chipset Evaluation Kit is based on Intel® Intelligent System Extended (ISX) Form Factor Reference Design, a new slim and small form factor design with a very small environmental footprint. This evaluation kit enables embedded developers flexibility and adaptability in their designs.

#### Delivering big potential in a small package

The 4th Generation Intel® Core™ Processor and Mobile Intel® QM87 Chipset Evaluation Kit delivers a full performance computing platform that occupies a space less than half an A4 paper and three centimeters thin.

Delivering superior computing performance and lower power consumption, the pairing of the 4th generation Intel® Core™ processor and the Mobile Intel® QM87 chipset ensures you get the most potential to realize the design of your intelligent applications.

Features like Intel® Hyper-Threading Technology<sup>1</sup> and Intel® Turbo Boost Technology 2.0<sup>1</sup> enables the processor to use its resources more efficiently by enabling multiple threads to run on each core and activating the full

processing power when needed. With the Mobile Intel® QM87 chipset, this evaluation kit boasts next generation I/O technologies such as two Super High Speed USB 3.0 ports, two Gigabit Ethernet LAN ports, integrated Wi-Fi, and a SIM card slot for 3G or LTE access — ensuring ample connectivity options.

#### Accelerating visuals with built-in graphics processor

Featuring a more powerful integrated graphics processor with built-in hardware acceleration technology, this evaluation kit delivers outstanding video performance. The 4th Generation Intel® Core™ Processor and Mobile Intel® QM87 Chipset Evaluation Kit supports up to three displays via two DisplayPorts and one HDMI port. This multi-display versatility offers a new dimension to broadcasting dynamic content for intelligent applications.

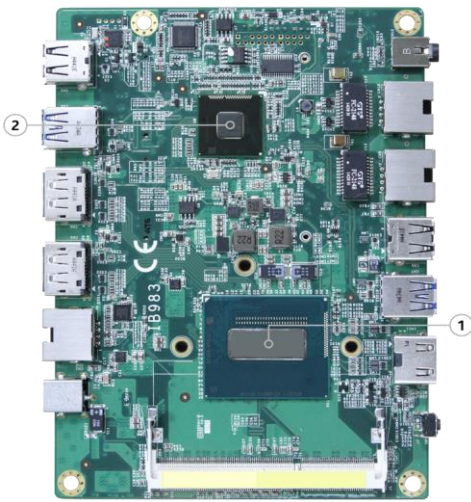
#### Speeding up design to deployment

For rapid design and deployment, this evaluation kit can be used as-is without any further modifications. Alternatively, because this evaluation kit is based on the Intel® ISX Form Factor Reference Design, board designers and design houses can contact Intel sales representatives to obtain the necessary collaterals to customize the board design.

#### Included in the Evaluation Kit

This evaluation kit is a complete system in a chassis and includes the following items:

- Evaluation board with 4th generation Intel® Core™ processor and Mobile Intel® QM87 chipset, installed
- New form factor based on Intel® Intelligent System Extended (ISX) Form Factor Reference Design
- 2 × 2GB DDR3L 1600MHz SODIMM
- 64GB mSATA
- 12V @7.0A DC Power Brick
- System Drivers and User Guide (CD)
- Quick Start Guide

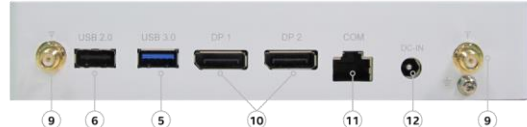


1. 4th Generation Intel® Core™ Processor  
*Low voltage technology for reduced size and power consumption, without sacrificing performance*
2. Mobile Intel® QM87 Chipset  
*With capabilities, such as integrated USB 3.0 and full SATA interface speed of up to 6GB/s, to provide flexibility for connecting to I/O devices*
3. Power Button
4. HDMI Connector
5. USB 3.0 Port
6. USB 2.0 Port
7. LAN Port
8. Line Out Audio Jack
9. Antenna Connector
10. DisplayPort
11. COM Port
12. Power Jack

Front Panel



Back Panel



## TECHNICAL SPECIFICATIONS

### PROCESSOR

- 4th generation Intel® Core™ i5/i3 processor
- Supports Intel® Turbo Boost Technology<sup>1</sup> and Intel® Hyper-Threading Technology<sup>1</sup>
- Supports Intel® 64 architecture<sup>2</sup>

### CHIPSET

- Mobile Intel® QM87 chipset
- Enables full SATA interface speed of up to 6Gb/s for Solid-State Drives
- Supports Intel® High Definition Audio

### GRAPHICS

- Intel® HD Graphics 4600/5000
- Supports InTru™ 3D Technology
- Supports Intel® Clear Video HD Technology
- Supports Intel® Quick Sync Video Technology
- Two DisplayPorts and one HDMI port supporting three independent displays<sup>3</sup>

### PERIPHERAL CONNECTIVITY

- Intel® Gigabit Ethernet LAN port
- UIM/SIM card slot for 3G or LTE support
- Two Wi-Fi antenna
- One mPCIe for WiFi + Bluetooth, 3G, GPS, TV Tuner options
- Two Hi-Speed USB 2.0 ports
- Two Super Hi-Speed USB 3.0 ports

### SYSTEM BIOS

- AMI BIOS with support for ACPI function

### SYSTEM MEMORY

- 2 × 2GB DDR3L 1600MHz SODIMM memory (16GB max non-ECC)

### AUDIO

- Output via HDMI and DisplayPort outputs
- Line Out jack

### STORAGE

- 64GB mSATA

### MECHANICAL CHASSIS SIZE

- 175mm × 116mm × 32mm

### MOUNTING

- Standard system bracket

### POWER REQUIREMENTS

- Single 12V, 7.0A DC input

### OPERATING TEMPERATURE

- 0°C to +45°C

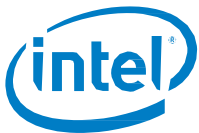
### NON-OPERATING TEMPERATURE

- -5°C to +50°C (with chassis)

### OPTIONAL ACCESSORIES

- Other DDR3 memory configurations
- Other Solid-State Drives (SSD) configurations

For more information on this evaluation kit, visit [www.intel.com/go/embedded](http://www.intel.com/go/embedded)



<sup>1</sup> Intel® Turbo Boost Technology, Intel® Hyper-Threading Technology, and Intel® Virtualization Technology require a computer system with a processor, chipset, BIOS, enabling software and/or operating system, device drivers, and applications designed for these features. Performance will vary depending on your configuration. Contact your vendor for more information.

<sup>2</sup> 64-bit computing on Intel® architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers, and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) without an Intel 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. See <http://developer.intel.com/technology/intel64/index.htm> for more information.

<sup>3</sup> Requires two DisplayPort and one HDMI port capable monitors. Supported only by Intel® Core™ i5 processors and above.

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