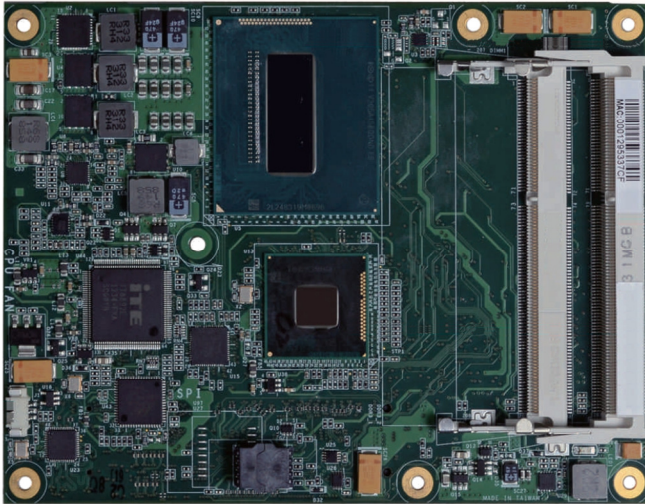


# H6827

## COM Express® Basic Type 2 4th Gen. Intel® Core™ i3/i5/i7



H6827 is based on the 4th generation Intel® Core™ processors (Haswell) built on 22-nanometer process technology. CPU performance is increased by roughly 5% to 15% compared with the previous generation.

This COM Express module takes full advantage of the Mobile Intel® QM87 Express chipset which is packed with high performance I/O capabilities to provide increased mobile computing and graphics performance.

The integrated Intel® HD Graphics 4600 engine provides for smooth flash playback and rich 2D/3D graphics. The enhancements in the instruction of Intel® Advanced Vector Extensions (Intel® AVX) 2.0 provide a significant performance improvement in integer and floating-point-intensive computations which are a key part of digital signal and image processing applications such as medical imaging and weather radar.



## FEATURES

- Intel 4th Generation Core™ (Haswell)
- Basic COM Express, type 2
- Up to 16GB system memory
- Optional onboard soldered SATA SSD
- Supports RAID 0/1/5 and 10
- Supports iAMT 9.0
- Intel HD 4600 Graphics Engine

## LOOKING FOR SOMETHING SLIGHTLY DIFFERENT?

In most cases standard products can be customized to your specification. With small modifications to hardware and software, you can have the qualities and functions you need.

Call us. We will be happy to suggest and implement changes in standard products to meet your requirements exactly.

# H6827 – Technical Specifications

## PROCESSOR OPTIONS

Intel® Core™ i7-4700EQ, 6M Cache, up to 3.4 GHz, 47W/37W  
Paired with Intel® QM87 Express Chipset

Intel® Core™ i5-4400E, 3M Cache, up to 3.3 GHz, 37W  
Paired with Intel® QM87 or Intel HM86 Express Chipset

Intel® Core™ i5-4402E, 3M Cache, up to 2.7 GHz, 25W  
Paired with Intel® QM87 or Intel HM86 Express Chipset

Intel® Core™ i3-4100E, 3M Cache, up to 2.4 GHz, 37W  
Paired with Intel HM86 Express Chipset

Intel® Core™ i3-4102E, 3M Cache, up to 1.6 GHz, 25W  
Paired with Intel HM86 Express Chipset

## CHIPSET OPTIONS

Intel® QM87 Express Chipset

Intel® HM86 Express Chipset

## SYSTEM MEMORY

Two 204-pin DDR3L SODIMM sockets

Supports DDR3L 1333/1600MHz SODIMM

Supports up to 16GB system memory

DRAM device technologies: 1Gb, 2Gb and 4Gb DDR3L DRAM technologies are supported for x8 and x16 devices, unbuffered, non-ECC

## ONBOARD GRAPHICS FEATURES

Intel® HD Graphics 4600

Supports 1 VGA and 1 LVDS

VGA display resolution up to 2048x1536

LVDS: NXP PTN3460, 24-bit, dual-channel, up to 1920x1200

Intel® Clear Video Technology

Intel® Advanced Vector Extensions (Intel® AVX) Instructions

Supports DirectX 11.1, OpenGL 3.2, OpenCL 1.2

## ONBOARD AUDIO FEATURES

Supports High Definition Audio interface

## ONBOARD LAN FEATURES

Intel® I217LM (with iAMT9.0 - Intel® QM87 only) Gigabit Ethernet Phy

Integrated 10/100/1000 transceiver

Fully compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab

## SERIAL ATA (SATA) INTERFACE

Supports 4 SATA 3.0 with data transfer rate up to 6Gb/s (Intel® QM87)

Supports 2 SATA 3.0, 1 SATA 2.0, and 1 IDE (Intel® HM86)

Supports 2 SATA 3.0, 1 IDE, and 1 SSD (optional) (Intel® HM86)

Integrated Advanced Host Controller Interface (AHCI) controller

Supports RAID 0/1/5/10 (Intel® QM87)

Supports Intel® Smart Response Technology (Intel® QM87)

## SSD (OPTIONAL)

4GB/8GB/16GB/32GB

Write: 30MB/sec (max), Read: 70MB/sec (max)

SATA to SSD on-board

## INTEL ACTIVE MANAGEMENT TECHNOLOGY (AMT) (INTEL® QM87 ONLY)

Supports iAMT9.0 (Intel® QM87)

Out-of-band system access (Intel® QM87)

Remote troubleshooting and recovery (Intel® QM87)

Hardware-based agent presence checking (Intel® QM87)

Proactive alerting (Intel® QM87)

Remote hardware and software asset tracking (Intel® QM87)

## IDE INTERFACE

Supports up to two IDE devices

DMA mode: Ultra ATA up to 100MB/s

## TRUSTED PLATFORM MODULE (TPM) (OPTIONAL)

Provides a Trusted PC for secure transactions

Provides software license protection, enforcement and password protection

## EXPANSION INTERFACES SUPPORTED

8 USB 2.0 interfaces

1 PCIe x16 Gen 3 interface

6 PCIe x1 interfaces

4 PCI interfaces (PCI 2.3)

LPC interface

SMBus interface

I2C interface

IDE interface

4-bit input and 4-bit output GPIO

## DAMAGE FREE INTELLIGENCE

Monitors CPU temperature and overheat alarm

Monitors CPU fan speed and failure alarm

Monitors Vcore/1.05V/DDR voltages and failure alarm

## BIOS

AMI BIOS

- 64Mbit SPI BIOS

## WATCHDOG TIMER

Software programmable from 1 to 255 seconds

## POWER

Input: 12V, VCC\_RTC, 5VSB (optional)

## OS SUPPORT

Windows 7 Ultimate x86 & SP1 (32-bit)

Windows 8 Enterprise x86 (32-bit)

## TEMPERATURE

Operating: 0°C to 60°C

Storage: -20°C to 85°C

## HUMIDITY

5% to 90%

## PCB

Dimensions

- COM Express® Basic

- 95mm (3.74") x 125mm (4.9")

Compliance

- PICMG COM Express® R2.1, Type 2