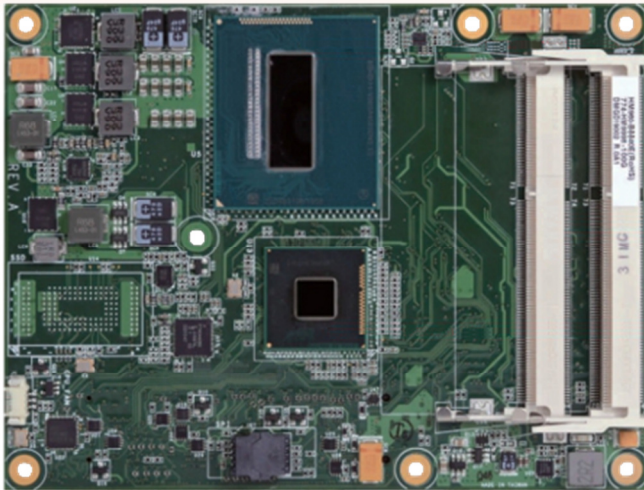


H6828

COM Express®, 4th Gen. Intel® Core™
i3/i5/i7 and ECC memory supported



H6828 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.

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 telecommunication, digital signal and image processing applications such as medical imaging and weather radar.

The H6828 features support for ECC (Error Correcting Code) memory which adds significant data integrity to applications in which data corruption is unacceptable. ECC requirements are often found in telecom/datacom, industrial automation, medical equipment and security related embedded applications.



FEATURES

- Intel 4th Generation Core™ (Haswell)
- BasicCOMexpress, type 6
- Up to 16GB system memory with ECC
- 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.

H6828 – Preliminary 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

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 with ECC

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

ONBOARD GRAPHICS FEATURES

Intel® HD Graphics 4600

Supports 1 VGA, 1 LVDS and 3 DDI

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, and 2 SATA 2.0 (Intel® HM86)

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

Integrated Advanced Host Controller Interface (AHCI) controller

Supports RAID 0/1/5/10

Supports Intel® Smart Response Technology (Intel® QM87)

USB INTERFACE

XHCI Host Controller supports up to 4 super speed USB 3.0 ports
(Intel® QM87)

XHCI Host Controller supports up to 2 super speed USB 3.0 ports

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)

TRUSTED PLATFORM MODULE, TPM (OPTIONAL)

Provides a Trusted PC for secure transactions

Provides software license protection, enforcement and
password protection

EXPANSION INTERFACES SUPPORTED

4 USB 3.0 interfaces (Intel® QM87)

2 USB 3.0 interfaces (Intel® HM86)

8 USB 2.0 interfaces

1 PCIe x16 Gen 3 interface

7 PCIe x1 interfaces

LPC interface

SMBus interface

I2C interface

2 serial interfaces (TX/RX)

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 (option)

OS SUPPORT

Support for Microsoft Windows alternatives and Linux

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 6