

H6824

COM Express® Mini with Intel® Atom™ E3800



H6824 is based on the Intel® Atom™ Processor E3800 offering increased performance while keeping power consumption low.

The processor platform combines CPU, graphics engine and I/O in a single component, a so called system-on-chip, SoC. The H6824 can be configured with up to 4 GB soldered ECC-memory.

The form factor is COM Express Mini (84 mm x 55 mm) and the module is compliant with COM Express R2.1, type 10. The feature set includes interfaces like 3 PCIe, LVDS, DDI, 8 USB and 2 SATA 2.0.

The new Intel® HD graphics engine supports H264 and resolutions up to 2560x1600.



FEATURES

- Intel ATOM E3800 series (Baytrail-I) and Celeron
- MiniCOMexpress, type 10
- Industrial temperature (optional)
- Up to 4GB on-board soldered ECC memory
- Optional on-board soldered eMMC
- Intel HD Graphics Generation 7

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.

H6824 – Technical Specifications

PROCESSOR OPTIONS

Intel® Atom™ Processor E3845
(2M Cache, Quad Core 1.91GHz); 10W

Intel® Atom™ Processor E3827
(1M Cache, Dual Core 1.75GHz); 8W

Intel® Atom™ Processor E3815
(1M Cache, Single Core 1.46GHz); 5W

Intel® Celeron™ Processor J1900
(1M Cache, Quad Core 2.42GHz); 10W

Intel® Celeron™ Processor N2930
(0.5M Cache, Quad Core 2.16GHz); 7.5W

SYSTEM MEMORY

2GB/4GB DDR3L on-board ECC

ONBOARD GRAPHICS FEATURES

Intel® HD Graphics

Display outputs:

- 1 LVDS
- 1 DDI: HDMI, DVI, DisplayPort

Display resolution:

- LVDS: NXP PTN3460, 24-bit, single channel, up to 1366x768
- HDMI and DVI resolution up to 1920x1080
- DisplayPort resolution up to 2560x1600

Supports H.264, MPEG-2, VC-1, DirectX 11, OCL 1.2, OGL 4.0, MVC, WMV9, VP8

ONBOARD AUDIO FEATURES

Supports High Definition Audio interface

ONBOARD LAN FEATURES

Intel® I210 Gigabit Ethernet Controller

Integrated 10/100/1000 transceiver

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

SERIAL ATA (SATA) INTERFACE

Supports 2 Serial ATA interfaces

SATA 2.0 with data transfer rate up to 3Gb/s

Integrated Advanced Host Controller Interface (AHCI) controller

ONBOARD STORAGE (OPTIONAL)

4GB/8GB/16GB/32GB thru eMMC

WATCHDOG TIMER

Watchdog timeout programmable via software from 1 to 255 seconds

EXPANSION INTERFACES SUPPORTED

1 USB 3.0 port

8 USB 2.0 ports

3 PCIe x1 interfaces

LPC interface

I2C interface

SMBus interface

2 Serial interface (Tx/Rx)

8-bit Digital interface

DAMAGE FREE INTELLIGENCE

Monitors CPU and System temperature

Monitors Vcore, Vgfx, VDDR, 3V3 voltages and failure alarm

Monitors CPU and System fan speed and failure alarm

Monitors Watchdog timer function

BIOS

64Mbit SPI BIOS

OS SUPPORT

Linux, Windows

TEMPERATURE

Operating: 0°C to 60°C

-40°C to 85°C (optional with some CPU-alternatives)

Storage: -40°C to 85°C

HUMIDITY

10% to 90%

POWER INPUT

4.75V to 20V, 5VSB, VCC_RTC (ATX mode)

4.75V to 20V, VCC_RTC (AT mode)

PCB

Dimensions:

- COM Express® Mini, 84mm (3.30") x 55mm (2.16")

Compliance

- PICMG COM Express® R2.1, Type 10

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