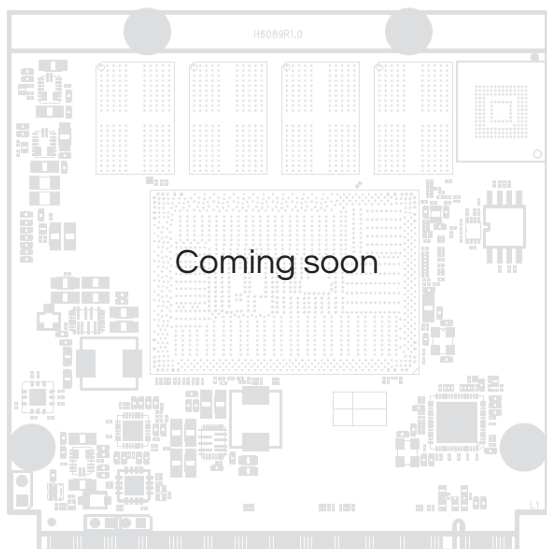# H6089

Qseven module with Intel® Atom® SOC

Coming soon

The H6089 is a compact (70mm x 70mm) high-performance, low power COM module based on the Intel® Atom® Elkhart Lake System-on-Chip. The SOC have the 11th generation Intel® UHD Graphics Engine GPU built in along with a dual or quad core CPU and I/O controller.

The Qseven form factor makes H6089 a module with a full range of low voltage differential serial interfaces such as PCI Express, USB 3.1, SATA and display interfaces such as DisplayPort or HDMI and Dual 24-bit LVDS.
Qseven modules are defined for low cost and ruggedness, with an MXM type edgecard connector interfacing the carrier board. H6089 has soldered memory and optional on-board eMMC Flash.
The H6089 is available in both standard and industrial grade operating temperature.

FEATURES

- Dual or Quad core Intel® Atom® SOC
- 11th generation Intel® UHD Graphics Engine
- Industrial temperature range (-40°C to +85°C)
- Up to three USB 3.1 or up to eight USB 2.0
- First Atom® CPU with support for Windows 11

- Optional on-board eMMC Flash storage
- Soldered LPDDR4x RAM memory
- Dual 24-bit LVDS and DisplayPort/HDMI
- Compatible with Q7 revision 2.1

LOOKING FOR SOMETHING SLIGHTLY DIFFERENT?

In most cases standard products can be customized to 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.

ENABLING YOUR NEXT STEP

HECTRONIC

H6089 - Technical Specifications

SOC (CPU+GPU+I/O)

Intel Atom® x6211E, 1.3 GHz DC, Q7 board, 4 GiB RAM, no eMMC, 1 USB3, 8 USB2, no fan/temp, industrial temp

Intel Atom® x6413E, 1.5 GHz QC, Q7 board, 8 GiB. 16 GB eMMC, 1 USB3, 8 USB2, industrial temp

Intel Atom® x6425E, 2.0 GHz QC, Q7 board, 16 GiB, 16 GB eMMC, 3 USB3, 4 USB2, industrial temp

INTEGRATED GRAPHICS

Integrated 2D/3D/MPEG hardware acceleration

GPU: 11th generation Intel® UHD Graphics Engine

MEMORY

Soldered LPDDR4x RAM, 2GiB, 4GiB, 8GiB or 16GiB

ONBOARD FLAH STORAGE (OPTIONAL)

eMMC, up to 128 GB, configurable as TLC or pSLC

SATA

2 x SATA Gen 3 ports

BATTERY MANAGEMENT

Support for Smart battery implementation on carrier board

POWER MANAGEMENT

ACPI 5.0 compliant Support for S3 and S4

SERIAL PORT

1 x COM (Tx, Rx, RTS, CTS)

BIOS Support for Super I/O on Carrier Board

CAN BUS

1 CAN (Supporting both CAN 2.0 and CAN FD)

SD Card

1 x SD Card port

USB

One of the following configurations:

a) 1 x USB 3.1 and 8 x USB 2.0

b) 2 x USB 3.1 and 6 x USB 2.0

c) 3 x USB 3.1 and 4 x USB 2.0

PCIE PORTS

4 x PCIe x1 Gen 3

LPC BUS

1 x LPC

ETHERNET

Intel® Gigabit Ethernet

SERIAL INTERFACE

I2C/SMBus interface

BIOS

AMI Aptio® V UEFI BIOS

DISPLAY INTERFACE

Dual 24-bit LVDS and DisplayPort/HDMI

AUDIO

Support for HDA audio codec on carrier board

POWER

+5V +/-5%

OPERATING TEMPERATURE

Standard: 0°C to +60°C

Industrial: -40°C to +85°C

HUMIDITY

10 to 90% (operating)

5 to 95% (storage)

FORM FACTOR

Qseven Specification 2.1, 70mm x 70mm

OPTIONAL ACESSORIES

Q7 Evaluation Carrier Board

Heatspreader

Heatsink

Coating Service

BIOS Customization Service

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