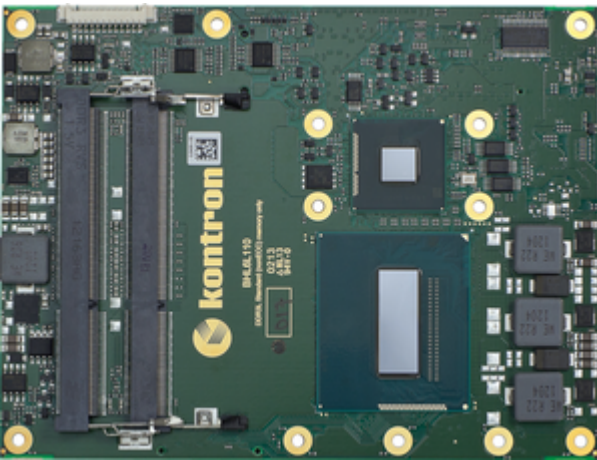


COM-3802 COM-bHL6



Intel® 4th Generation Core™ i7/i5/i3/Celeron series with QM87/HM86 PCH

Up to 16GB non-ECC DDR3L up to 16GB

triple independent display support

up to 4k resolutions

The COM Express® basic sized Computer-on-Module COMe-bHL6 (BHL6 / BBL6) follows pin-out Type 6 and is compatible to PICMG specification COM.0 Rev 2.1. The COMe-bHL6 based on latest Shark Bay Mobile platform is available in different variants to cover the demand of different performance, price and power:

- Commercial grade modules (0°C to 60°C operating)
- Extended temperature grade modules (E1, -25°C to 75°C operating) and
- Industrial temperature grade modules (XT, -40°C to 85°C operating)

The COMe-bHL6 is available for extended and industrial temperature range. General capability was tested for following

options:

- » CPU: all
- » Memory: E2 DDR3L memory only
- » VCC: 12V only, no support for Wide-Range Input

The RXT product line includes modules with following featureset:

- » industrial grade temperature range (-40 to +85°C) by screening
- » ECC Memory support
- » Rapid Shutdown support

Processor

The 22nm Intel® 4th Gen Core™ i7/i5/i3/Celeron® embedded (Haswell-H (Halo) / Crystal Well) CPU family with

37.5x32mm package size (BGA1364 socket) see manual for more information on CPU support.

Integrated Intel® HD Graphics 5200/4600 (Gen7.5)

The 32nm Intel® 8-Series Platform Controller Hub Lynx Point PCH QM87 or HM86.

Additional features

- » All solid capacitors (POSCAP). No tantalum capacitors used.
- » Optimized RTC Battery monitoring to secure highest longevity
- » Real fast I2C with transfer rates up to 40kB/s.
- » Discharge logic on all onboard voltages for highest reliability

The brand new application-ready COMe-bHL6 offers increased performance density and up to twice the graphics performance compared to its predecessors. Up to three independent, daisy-chained displays with up to 4K resolution are supported to create stunning user experiences. Further to this, DirectX® 11.1 and OpenGL 4.0 support paves the way for compelling visuals when videos, graphics and interactive content are being displayed. By integrating the new Intel® AVX2 and OpenCL 1.2, This new Computer-on-Modules additionally not only provide an increase in floating-point performance they also possess improved parallel processing capacities. Typical application areas can be found in markets such as digital signage, professional gaming and entertainment, medical imaging and surveillance and security as well as industrial plant and machine line control on shop floor- and control room-level.

Engineers can immediately commence with evaluating these new benchmark Computer-on-Modules on all COM Express® pin-out type 6 compliant starter kits.

The COM Express® pin-out type 6 COMe-bHL6 module is available in several different variants ranging from the cost-optimized low power processor versions up to quad-core Intel® Core™ i7 processors with up to 4x 2.4 GHz. The modules are designed with the Intel® Mobile QM87 chipset, host up to 16 GB DDR3L RAM and support 7 PCI Express x1 lanes and 1 PEG x16 interface which is also compatible to standard PCI Express devices. Less complex peripherals can be connected via SPI and LPC. Additional dedicated features include 3x SATA 6Gb/s ports, 1 SATA 3Gb/s port, as well as Gigabit Ethernet, 4 USB 3.0 ports, 4 USB 2.0 and 2 serial ports. The COMe-bHL6 features comprehensive display support with 3x dual mode DisplayPort++ which can also output, HDMI, DVI and DisplayPort 1.2. Industrial applications benefit from the watchdog and real-time clock. The module supports an 8.5-20V wide-range power supply. The support of smart batteries via MARS and the standardized embedded application programming interface EAPI round off the feature set and provide engineers with a comprehensive service package that eases system development as well as system programming.

Specifications

SOM Type:

COM Express Modules

Processor

Intel 4th Generation Core i7/i5/i3/Celeron series

Clock Speed:

2.7 GHz

Real Time Clock:

Processor Misc.:

4th Generation Intel® Core™ Processors H-series

i7-4860EQ, Quad Core 1.8 GHz/47W

i7-4850EQ, Quad Core 1.6 GHz/47W

i7-4700EQ, Quad Core 2.4 GHz/47W

i5-4400E, Dual Core 2.7 GHz/37W

i5-4402E, Dual Core 1.6 GHz/25W

i3-4100E, Dual Core 2.4 GHz/37W

i3-4102E, Dual Core 1.6 GHz/25W

2000E, Dual Core 2.2 GHz/37W

2002E, Dual Core 1.5 GHz/25W

Memory
BIOS/Bootloader:

Phoenix Secure Core UEFI

Memory Misc.:

2x DDR3L-1600 SO-DIMM up to 8GB each

Primary I/O
GPIO:

8x GPIO

Disk Interface:

4x SATA

Video Out:

VGA

LVDS and 3x DDI (HDMI/DVI/DP)

Audio:

Intel® High Definition Audio

Ethernet:

Intel i218-LM Gigabit

USB:

4x USB 3.0 & 4x USB 2.0

Serial Ports:

2x COM (2-Wire)

Watchdog:

Primary I/O Misc.:

Intel QM87 Chipset on i5 & i7 systems: 4x USB 3.0, 4x USB 2.0, 3x SATA III, 1x SATA II

Intel HM86 Chipset on i3 and Celeron systems: 2x USB 3.0, 6x USB 2.0, 2x SATA III, 2x SATA II

Secondary I/O
LPT Port:

Keypad:

PS/2:

Analog on
AUX:

D/A:

Dimensions
Dimensions:

4.92 × 3.74 in

Form Factor:

COM Express Basic

Dimensions Misc.:

Dimensions 125 x 95 mm (4.92" x 3.74")

Environmental nents

Pricing
COM-38025-022-1

38025-0000-22-1, COMe-bHL6, COMe-T6, 2000E 2x2.2GHz, 2x COM, 4xUSB3, 4xUSB2, GbE, 3x DDI, VGA, LVDS

\$435.00

Order:

0

Parent Product:

COM-38025

Base Product:

COM-38025

COM-38025-015-1

38025-0000-15-1, COMe-bHL6, COMe-T6, 2002E 2x1.5GHz, 2x COM, 4xUSB3, 4xUSB2, GbE, 3x DDI, VGA, LVDS

\$435.00

Order:

0

Parent Product:

COM-38025

Base Product:

COM-38025

COM-38025-024-3

38025-0000-24-3, COMe-bHL6, COMe-T6, i3-4100E, 2x2.4GHz, 2x COM, 4xUSB3, 4xUSB2, GbE, 3x DDI, VGA, LVDS

\$627.00

Order:

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Parent Product:

COM-38025

Base Product:

COM-38025

COM-38025-016-3

38025-0000-16-3, COMe-bHL6, COMe-T6, TMi3-4102E, 2x1.6GHz, 2x COM, 4xUSB3, 4xUSB2, GbE, 3x DDI, VGA, LVDS

\$627.00

Order:

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Parent Product:

COM-38025

Base Product:

COM-38025

COM-38025-027-5

38025-0000-27-5, COMe-bHL6, COMe-T6, TMi5-4400E, 2x2.7GHz, 2x COM, 4xUSB3, 4xUSB2, GbE, 3x DDI, VGA, LVDS

\$857.00

Order:

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Parent Product:

COM-38025

Base Product:
COM-38025
COM-38025-016-5
38025-0000-16-5, COMe-bHL6, COMe-T6, i5-4402E, 2x1.6GHz, 2x COM, 4xUSB3, 4xUSB2, GbE, 3x DDI, VGA, LVDS
\$857.00
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Base Product:
COM-38025
COM-38025-024-7
38025-0000-24-7, COMe-bHL6, COMe-T6, TM i7-4700EQ, 4x2.4GHz, 2x COM, 4xUSB3, 4xUSB2, GbE, 3x DDI, VGA, LVDS
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Parent Product:
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Base Product:
COM-38025
COM-38025-016-7
38025-0000-16-7, COMe-bHL6, COMe-T6, i7-4850EQ, 4x1.6GHz, 2x COM, 4xUSB3, 4xUSB2, GbE, 3x DDI, VGA, LVDS
\$1,280.00
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Parent Product:
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Base Product:
COM-38025
COM-38025-018-7
38025-0000-18-7, COMe-bHL6, COMe-T6, TM i7-4860EQ, 4x1.8GHz, 2x COM, 4xUSB3, 4xUSB2, GbE, 3x DDI, VGA, LVDS
\$1,368.00
Order:
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Parent Product:
COM-38025
Base Product:
COM-38025
COM-38026-X27-5
38026-0000-27-5, COMe-bHL6RXT, COMe-T6, TM i7-4400E, 2x2.7GHz, 2x COM, 4xUSB3, 4xUSB2, GbE, 3x DDI, VGA, LVDS (-40~85C)
\$1,191.00
Order:
0
Parent Product:
COM-38025
Base Product:
COM-38025
COM-38026-X24-7
38026-0000-24-7, COMe-bHL6RXT, COMe-T6, i7-4700EQ, 4x2.4GHz, 2x COM, 4xUSB3, 4xUSB2, GbE, 3x DDI, VGA, LVDS (-40~85C)
\$1,519.00
Order:

0

Parent Product:

COM-38025

Base Product:

COM-38025

COM-38026-X18-7

38026-0000-18-7, COMe-bHL6RXT, COMe-T6, TMi7-4860EQ, 4x1.8GHz, 2x COM, 4xUSB3, 4xUSB2, GbE, 3x DDI, VGA, LVDS (-40~85C)

\$1,900.00

Order:

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Parent Product:

COM-38025

Base Product:

COM-38025

Non-Stock NCNR:

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