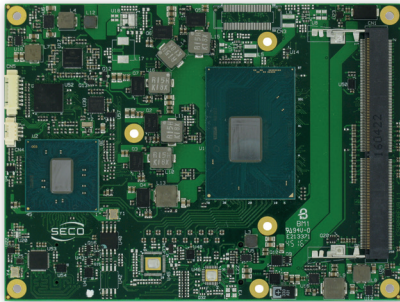




COMe-B09-BT6

COM Express™ Basic Type 6 with Intel® 6th and 7th generation Core™ / Xeon® (formerly Skylake and Kaby Lake) CPUs

When high graphics and Hyper-threading matter



HIGHLIGHTS



CPU

Intel® 6th and 7th generation Core™ / Xeon® CPUs



CONNECTIVITY

4x USB 3.0; 8x USB 2.0; 8x PCI-e x1 Gen3; PEG x16 Gen3



GRAPHICS

Intel® HD Graphics 530 / P530/630/P630



MEMORY

2 x DDR4 So-DIMM slots



IoT Solutions Alliance



DEVELOPMENT SAMPLING PRODUCTION

MAIN FIELDS OF APPLICATION



Biomedical/
Medical devices



Digital Signage
- Infotainment



HMI



Gaming



Telco

FEATURES

Processor

Intel® Core™ **i3-6102E**, Dual Core @ 1.9GHz, 3MB Cache, 25W TDP
Intel® Core™ **i3-6100E**, Dual Core @ 2.7GHz, 3MB Cache, 35W TDP
Intel® Core™ **i5-6442EQ**, Quad Core @ 1.9GHz (2.7GHz in Turbo Boost), 6MB Cache, 25W TDP
Intel® Core™ **i5-6440EQ**, Quad Core @ 2.7GHz (3.4GHz in Turbo Boost), 6MB Cache, 45W TDP
Intel® Core™ **i7-6822EQ**, Quad Core @ 2GHz (2.8GHz in Turbo Boost), 8MB Cache, 25W TDP
Intel® Core™ **i7-6820EQ**, Quad Core @ 2.8GHz (3.5GHz in Turbo Boost), 8MB Cache, 45W TDP
Intel® Xeon® **E3-1505M V5**, Quad Core @ 2.8GHz (3.7GHz in Turbo Boost), 8MB Cache, 45W TDP
Intel® Xeon® **E3-1515M V5**, Quad Core @ 2.8 GHz, 8MB Cache, 45W TDP (ECC supported), GT4E LINE (DO) with OPC (AO)
Intel® Core™ **i3-7102E**, Dual core @ 2.10 GHz (3M Cache, 2.10 GHz) FCBGA1440 CPU + GPU - 25W TDP (ECC supported)
Intel® Core™ **i3-7100E**, Dual Core @ 2.9GHz, 3MB Cache, 35W TDP
Intel® Core™ **i5-7442EQ**, Quad core @ 2.90 GHz (6M Cache, up to 2.90 GHz) FCBGA1440 CPU + GPU - 25W TDP (ECC no supported)
Intel® Core™ **i5-7440EQ**, Quad Core @ 2.90GHz (up to 3.60 GHz), 6MB Cache, 45W TDP
Intel® Core™ **i7-7820EQ**, Quad Core @ 3.0GHz (3.7GHz in Turbo Boost), 8MB Cache, 45W TDP
Intel® Xeon® **E3-1505L V6**, Quad core @ 2.20 GHz (8M Cache, 2.20 GHz) FCBGA1440 CPU + GPU - 25W TDP (ECC supported)
Intel® Xeon® **E3-1505M V6**, Quad Core @ 3.0GHz (4.0GHz in Turbo Boost), 8MB Cache, 45W TDP

Max Cores

4

Max Thread

8 (HT not available with 6th Generation Core™ i5 and 7th Generation Core™ i3/i5 Processors)

Chipset

SkyLake Platform: Intel® QM170, HM170 or CM236 PCH
KabyLake Platform: Intel® QM175 or CM238 PCH

Memory

Up to two DDR4 SO-DIMM Slots supporting DDR4-2133 (DDR4-2400 for 7th Generation processors) Memory
ECC DDR4 memory modules supported only with Xeon® and Core™ i3 processors combined with CM236 / CM238 PCH



Graphics

Intel® HD Graphics 530 (6th Generation Core™ processors), P530 (6th Generation Xeon® processors)
Intel® HD Graphics 630 (7th Generation Core™ processors), P630 (7th Generation Xeon® processors)
Up to 3 independent displays supported
DirectX® 12.1, OpenGL 4.4, and OpenCL 2.0 support
HW accelerated video decode MPEG2, VC1 / WMV9, AVC / H.264, VP8, JPEG / MJPEG, HEVC / H.265, VP9
HW accelerated video encode MPEG2, AVC / H.264, VP8, JPEG / MJPEG, HEVC / H.265, VP9
Up to 3 x Digital Display Interfaces (DDIs), supporting DP 1.2, DVI and HDMI 1.4
eDP or Single / Dual-Channel 18- / 24- bit LVDS interface or LVDS + VGA interface
PCI-express Graphics (PEG) Gen3 x16



Video Interfaces



Video Resolution

eDP, DP: up to 4096x2304 @60Hz, 24bpp
HDMI: up to 4096x2160 @60Hz, 24bpp
LVDS, VGA: up to 1920 x 1200 @60Hz



Mass Storage

4 x SATA Gen3 Channels



Networking

Gigabit Ethernet interface
Intel® I219-LM GbE Controller



USB

4 x USB 3.0 Host ports
8 x USB 2.0 Host ports



PCI-e

8 x PCI-e x1 Gen3 lanes



Audio

HD Audio Interface



Serial Ports

2 x UARTs



Other Interfaces

2 x SPI, I2C, SM Bus, LPC Bus, 2 x Express Card, FAN management
Optional TPM 1.2
LID# / SLEEP# / PWRBTN#, Watchdog
4x GPI, 4 x GPO



Power Supply

+12V_{DC} ± 10% and +5V_{SB} (optional)



Operating System

Microsoft® Windows 7 (only for Skylake)
Microsoft® Windows 10
Linux



Operating Temperature*

0°C ÷ +60°C (Commercial version)
-40°C / +70°C (Extended Temperature Range)



Dimensions

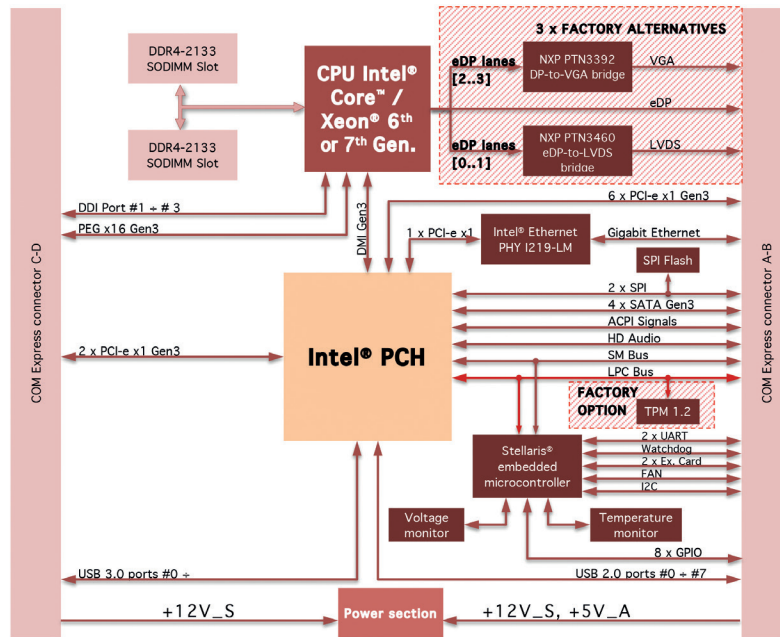
125 x 95 mm (Com Express™ Basic Form factor, Type 6 pinout)

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.

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BLOCK DIAGRAM



Mouser Electronics

Authorized Distributor

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