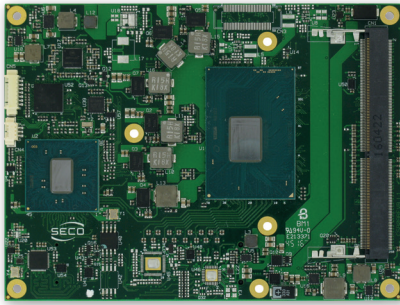




COMe-B09-BT6

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



DEVELOPMENT | SAMPLING | **PRODUCTION**

MAIN FIELDS OF APPLICATION



FEATURES

Processor	<p>Intel® Core™ i3-6102E, Dual Core @ 1.9GHz, 3MB Cache, 25W TDP</p> <p>Intel® Core™ i3-6100E, Dual Core @ 2.7GHz, 3MB Cache, 35W TDP</p> <p>Intel® Core™ i5-6442EQ, Quad Core @ 1.9GHz (2.7GHz in Turbo Boost), 6MB Cache, 25W TDP</p> <p>Intel® Core™ i5-6440EQ, Quad Core @ 2.7GHz (3.4GHz in Turbo Boost), 6MB Cache, 45W TDP</p> <p>Intel® Core™ i7-6822EQ, Quad Core @ 2GHz (2.8GHz in Turbo Boost), 8MB Cache, 25W TDP</p> <p>Intel® Core™ i7-6820EQ, Quad Core @ 2.8GHz (3.5GHz in Turbo Boost), 8MB Cache, 45W TDP</p> <p>Intel® Xeon® E3-1505M V5, Quad Core @ 2.8GHz (3.7GHz in Turbo Boost), 8MB Cache, 45W TDP</p> <p>Intel® Xeon® E3-1515M V5, Quad Core @ 2.8 GHz, 8MB Cache, 45W TDP (ECC supported), GT4E LINE (DO) with OPC (A0)</p> <hr/> <p>Intel® Core i3-7102E, Dual core @ 2.10 GHz (3M Cache, 2.10 GHz) FCBGA1440 CPU + GPU - 25W TDP (ECC supported)</p> <p>Intel® Core™ i3-7100E, Dual Core @ 2.9GHz, 3MB Cache, 35W TDP</p> <p>Intel® Core i5-7442EQ, Quad core @ 2.90 GHz (6M Cache, up to 2.90 GHz) FCBGA1440 CPU + GPU - 25W TDP (ECC no supported)</p> <p>Intel® Core i5-7440EQ, Quad Core @ 2,90GHz (up to 3.60 GHz), 6MB Cache, 45W TDP</p> <p>Intel® Core™ i7-7820EQ, Quad Core @ 3.0GHz (3.7GHz in Turbo Boost), 8MB Cache, 45W TDP</p> <p>Intel® Xeon® E3-1505L V6, Quad core @ 2.20 GHz (8M Cache, 2.20 GHz) FCBGA1440 CPU + GPU - 25W TDP (ECC supported)</p> <p>Intel® Xeon® E3-1505M V6, Quad Core @ 3.0GHz (4.0GHz in Turbo Boost), 8MB Cache, 45W TDP</p>
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	<p>Intel® HD Graphics 530 (6th Generation Core™ processors), P530 (6th Generation Xeon® processors)</p> <p>Intel® HD Graphics 630 (7th Generation Core™ processors), P630 (7th Generation Xeon® processors)</p> <p>Up to 3 independent displays supported</p> <p>DirectX® 12.1, OpenGL 4.4, and OpenCL 2.0 support</p> <p>HW accelerated video decode MPEG2, VC1 / WMV9, AVC / H.264, VP8, JPEG / MJPEG, HEVC / H.265, VP9</p> <p>HW accelerated video encode MPEG2, AVC / H.264, VP8, JPEG / MJPEG, HEVC / H.265, VP9</p>
Video Interfaces	<p>Up to 3 x Digital Display Interfaces (DDIs), supporting DP 1.2, DVI and HDMI 1.4</p> <p>eDP or Single / Dual-Channel 18- / 24- bit LVDS interface or LVDS + VGA interface</p> <p>PCI-express Graphics (PEG) Gen3 x16</p>
Video Resolution	<p>eDP, DP: up to 4096x2304 @60Hz, 24bpp</p> <p>HDMI: up to 4096x2160 @60Hz, 24bpp</p> <p>LVDS, VGA: up to 1920 x 1200 @60Hz</p>
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)

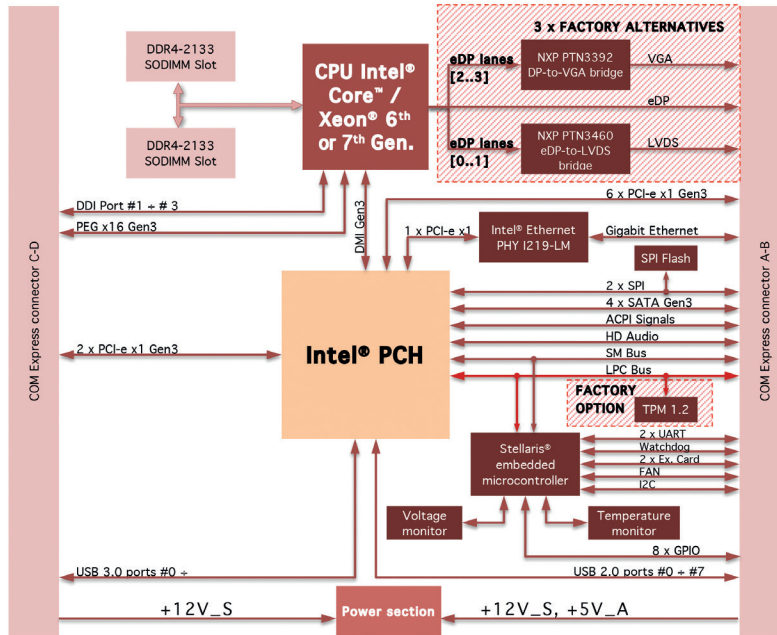
*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader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



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BLOCK DIAGRAM



Information subject to change. Please visit www.seco.com to find the latest version of this datasheet.

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