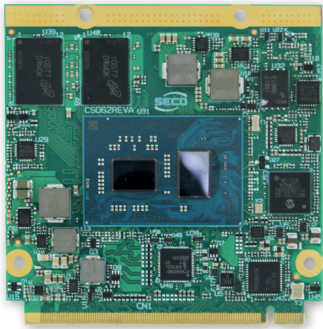




## ATLAS Qseven® Rel. 2.1 compliant module with Intel® Atom® X6000E Series, Intel® Pentium® and Celeron® N and J Series SoCs (formerly Elkhart Lake) with Time Coordinated Computing

### High computing and graphics performance in Qseven® form factor



#### HIGHLIGHTS

<b>CPU</b> Intel® Atom® x6000E Series and Intel® Pentium® and Celeron® N and J Series processors	<b>CONNECTIVITY</b> 1x GbE with precision time protocol IEEE 1588, 6x USB 2.0, 2x SuperSpeed USB 10Gbps, up to 4x PCI-e
<b>GRAPHICS</b> Integrated Intel® Gen11 UHD Graphics controller, up to 32 Execution Units	<b>MEMORY</b> Up to 16GB Quad-Channel LPDDR4 Soldered Down with IBCEC



#### MAIN FIELDS OF APPLICATION



#### FEATURES

<b>Processor</b> Celeron® J6413 Quad Core @ 1.8GHz (3GHz Turbo) 10W TDP Celeron® N6211 Dual Core @ 1.2GHz (3GHz Turbo) 6.5W TDP Pentium® J6426 Quad Core @ 1.8GHz (3GHz Turbo) 10W TDP Pentium® N6415 Quad Core @ 1.2GHz (3GHz Turbo) 6.5W TDP Atom® x6211E Dual Core @ 1.2GHz (3GHz Turbo) 6W TDP, IBCEC - Industrial Atom® x6413E Quad Core @ 1.5GHz (3GHz Turbo) 9W TDP, IBCEC - Industrial Atom® x6425E Quad Core @ 1.8GHz (3GHz Turbo) 12W TDP, IBCEC - Industrial Atom® x6212RE Dual Core @ 1.2GHz (no Turbo) 6W TDP, IBCEC and TCC* – Industrial Atom® x6414RE Quad Core @ 1.5GHz (no Turbo) 9W TDP, IBCEC and TCC* – Industrial Atom® x6425RE Quad Core @ 1.9GHz (no Turbo) 12W TDP, IBCEC and TCC* – Industrial (*) TCC: Time Coordinated Computing	<b>Mass Storage</b> 2x S-ATA Gen3 Channels SDIO interface Optional eMMC 5.1 drive soldered on-board
<b>Memory</b> Soldered down LPDDR4-3200 memory Up to 16GB with IBCEC supported only with Atom™ Industrial SoCs Speed: 4267MT/s single rank (1GB / 2GB / 4GB / 8GB), 3733MT/s dual rank (16GB)	<b>Networking</b> 1x Gigabit Ethernet PHY with precision clock synchronization and synchronous Ethernet clock output for IEEE 1588
<b>Graphics</b> Up to 3 independent displays Integrated Intel® Gen11 UHD Graphics controller with up to 32 EU 4K HW decoding and encoding of HEVC (H.265), H.264, VP8, VP9, WMV9/VC1 (decoding only) DirectX 12.1, OpenGL ES 3.1, OpenGL 4.5, OpenCL™ 1.2, Vulkan 1.0	<b>USB</b> 6x USB 2.0 Host ports 2x SuperSpeed USB 10Gbps Host ports (*) (*) Second SuperSpeed USB 10Gbps Host port can be utilized only via Qseven® Rel. 2.1 compliant carrier boards
<b>Video Interfaces</b> 1x eDP 1.3 or Single/Dual-Channel 18-/24-bit LVDS interface 1x DP++ 1.4 or HDMI 1.4 interface	<b>PCI-e</b> 4x PCI-e x1 Gen3 lanes
<b>Video Resolution</b> Up to 4096x2160 @60Hz	<b>Audio</b> HD Audio interface
	<b>Serial Ports</b> 2x UARTs
	<b>Other Interfaces</b> SPI, I2C, I2S, CAN, SM Bus, Thermal Management, FAN management Optional LPC bus Optional TPM 2.0 on-board Watchdog
	<b>Power Supply</b> +5V <sub>DC</sub> and +5V <sub>SB</sub> (optional)
	<b>Operating System</b> Microsoft® Windows 10 IoT Enterprise Yocto
	<b>Operating Temperature*</b> 0°C - +60°C (Commercial version) -40°C - +85°C (Industrial version)
	<b>Dimensions</b> 70 x 70 mm (2.76" x 2.76")

\*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.

# ATLAS

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## BLOCK DIAGRAM

