



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

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



MAIN FIELDS OF APPLICATION



FEATURES

Processor 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, IBECC - Industrial Atom™ x6413E Quad Core @ 1.5GHz (3GHz Turbo) 9W TDP, IBECC - Industrial Atom™ x6425E Quad Core @ 1.8GHz (3GHz Turbo) 12W TDP, IBECC - Industrial Atom™ x6212RE Dual Core @ 1.2GHz (no Turbo) 6W TDP, IBECC and TCC* – Industrial Atom™ x6414RE Quad Core @ 1.5GHz (no Turbo) 9W TDP, IBECC and TCC* – Industrial Atom™ x6425RE Quad Core @ 1.9GHz (no Turbo) 12W TDP, IBECC and TCC* – Industrial (*) TCC: Time Coordinated Computing	Mass Storage 2x S-ATA Gen3 Channels SDIO interface Optional eMMC 5.1 drive soldered on-board
Memory Soldered down LPDDR4-3200 memory Up to 16GB with IBECC supported only with Atom™ Industrial SoCs Speed: 4267MT/s single rank (1GB / 2GB / 4GB / 8GB), 3733MT/s dual rank (16GB)	Networking 1x Gigabit Ethernet PHY with precision clock synchronization and synchronous Ethernet clock output for IEEE 1588
Graphics 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	USB 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
Video Interfaces 1x eDP 1.3 or Single/Dual-Channel 18-/24-bit LVDS interface 1x DP++ 1.4 or HDMI 1.4 interface	PCI-e 4x PCI-e x1 Gen3 lanes
Video Resolution Up to 4096x2160 @60Hz	Audio HD Audio interface
	Serial Ports 2x UARTs
	Other Interfaces SPI, I2C, I2S, CAN, SM Bus, Thermal Management, FAN management Optional LPC bus Optional TPM 2.0 on-board Watchdog
	Power Supply +5V _{DC} and +5V _{SB} (optional)
	Operating System Microsoft® Windows 10 IoT Enterprise Yocto
	Operating Temperature* 0°C - +60°C (Commercial version) -40°C - +85°C (Industrial version)
	Dimensions 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.

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BLOCK DIAGRAM

