

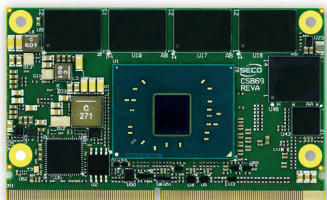


SM-B69

SMARC® Rel. 2.0 compliant module with the Intel® Atom™ X Series, Intel® Celeron® J / N Series and Intel® Pentium® N Series (formerly Apollo Lake) Processors

High performance, low power and feature-rich

HIGHLIGHTS



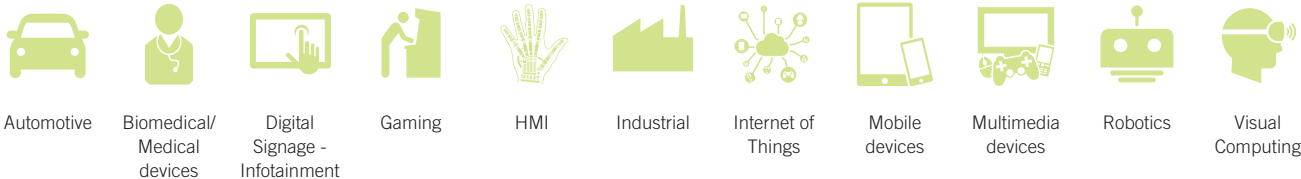
CPU Intel® Atom™ X Series, Intel® Celeron® J / N Series and Intel® Pentium® N Series (formerly Apollo Lake) Processors	CONNECTIVITY 2x GbE, 2x USB 3.0; 6x USB 2.0; 4x PCI-e
GRAPHICS Intel® HD Graphics 500 series controller with up to 18 Execution Units	MEMORY Dual Channel Soldered Down LPDDR4-2400 memory

Available in Industrial Temperature Range



DEVELOPMENT **SAMPLING** PRODUCTION

MAIN FIELDS OF APPLICATION



FEATURES

Processor	Intel® Atom™ x7-E3950 Quad Core @1.6 GHz (Burst 2.0GHz), 2MB L2 Cache, 12W TDP Intel® Atom™ x5-E3940 Quad Core @1.6 GHz (Burst 1.8GHz), 2MB L2 Cache, 9.5W TDP Intel® Atom™ x5-E3930 Dual Core @1.3 GHz (Burst 1.8GHz), 2MB L2 Cache, 6.5W TDP Intel® Pentium® N4200 Quad Core @1.1GHz (burst 2.5GHz), 2MB L2 Cache, 6W TDP Intel® Celeron® N3350 Dual Core @1.1GHz (burst 2.5GHz), 2MB L2 Cache, 6W TDP Intel® Celeron® J3455 , Quad Core @ 1.5GHz (Burst 2.3GHz), 2MB L2Cache, 10W TDP Intel® Celeron® J3355 , Dual Core @ 2.0GHz (Burst 2.5GHz), 2MB L2Cache, 10W TDP
Max Cores	4
Memory	Dual Channel Soldered Down LPDDR4-2400 memory, up to 8GB
Graphics	Up to 3 independent displays Integrated Gen9-LP HD Graphics controller, with 18 Execution Units 4K HW decoding and encoding of HEVC(H.265), H.264, VP8, SVC, MVC
Video Interfaces	eDP + MIPI-DSI interfaces or Dual Channel 18/24bit LVDS interface through eDP-to-LVDS bridge HDMI or DP++ interface DP++ interface 2 x CSI interfaces
Video Resolution	HDMI, eDP up to 3840 x 2160 (4K) DP++ Up to 4096 x 2160 MIPI-DSI, LVDS Up to 1920 x 1200
Mass Storage	1 x external S-ATA Gen3 Channel SD interface Optional eMMC 5.0 drive soldered on-board
Networking	Up to 2 x Gigabit Ethernet interfaces Intel® I210 or I211 Controller (MAC + PHY)
USB	6 x USB 2.0 Host Ports 2 x USB 3.0 Host Ports

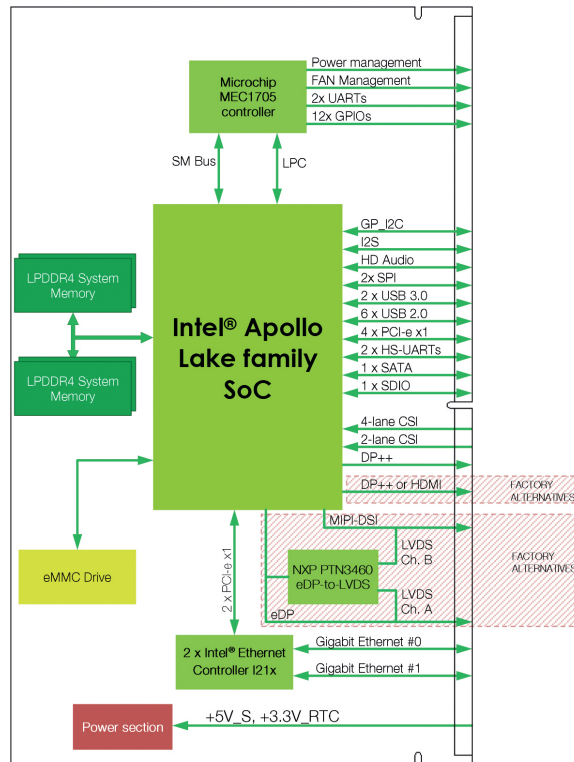
PCI-e	4 x PCI-e Root Ports
Audio	HD Audio interface I2S Audio interface
Serial Ports	2 x HS-UARTs 2 x UARTs
Other Interfaces	Up to 12x GPIOs I2C Bus SM Bus 2x SPI interfaces FAN management Power Management Signals
Power Supply	+5V _{DC} and +3.3V _{RTC}
Operating System	Microsoft® Windows 10 Enterprise (64 bit) Microsoft® Windows 10 IoT Core Linux Yocto Android
Operating Temperature*	0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (Industrial version)
Dimensions	50 x 82 mm

*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



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