

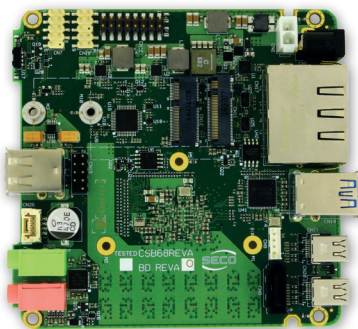
Single Board Computer



SBC-B68-eNUC

SBC with the Intel® Atom™ X Series, Intel® Celeron® J / N Series and Intel® Pentium® N Series (formerly Apollo Lake) Processors in the embedded NUC™ form factor

Flexible and expandable full industrial x86 eNUC SBC



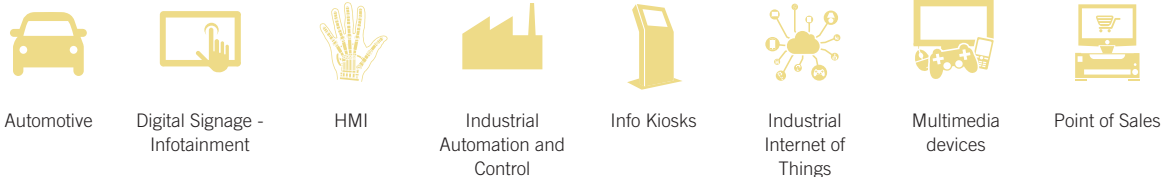
HIGHLIGHTS

CPU Intel® Atom™ X Series, Intel® Celeron® J / N Series and Intel® Pentium® N Series	CONNECTIVITY 2x GbE; M.2 WWAN and WLAN slots; CIR sensor; 2x I2C; 8x GPIOs
GRAPHICS Integrated Intel® HD Graphics 500 series controller	MEMORY Up to 8GB LPDDR4 memory

Available in Industrial Temperature Range



MAIN FIELDS OF APPLICATION



FEATURES

Processor Intel® Atom™ x5-E3930 Dual Core @1.3 GHz (Burst 1.8GHz), 2MB L2 Cache, 6.5W TDP Intel® Atom™ x5-E3940 Quad Core @1.6 GHz (Burst 1.8GHz), 2MB L2 Cache, 9.5W TDP Intel® Atom™ x7-E3950 Quad Core @1.6 GHz (Burst 2.0GHz), 2MB L2 Cache, 12W TDP Intel® Pentium® N4200 Quad Core @1.1GHz (Burst 2.5GHz), 2MB L2 Cache, 6W TDP Intel® Celeron® N3350 Dual Core @1.1GHz (Burst 2.4GHz), 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	2 x USB 3.0 Host ports on USB 3.0 Type-A sockets 2 x USB 2.0 Host ports on USB 2.0 Type-A sockets 2 x USB 2.0 Host ports on internal pin header 1 x USB 3.0 Host port on SSD/WWAN M.2 slot 1 x USB 2.0 Host port on WLAN M.2 Slot 1 x PCI-e x2 port on M.2 SSD/WWAN Slot 1 x PCI-e x1 port on WLAN M.2 Slot
Max Cores	4
Max Thread	4
Memory	Quad Channel soldered down LPDDR4 memory, up to 8GB
Graphics	Integrated Intel® HD Graphics 500 series controller, with up to 18 Execution Units 4K HW decoding and encoding of HEVC(H.265), H.264, VP8, VP9, MVC Three independent display support
Video Interfaces	Two DP++ 1.2 interfaces on miniDP connectors (supports HDMI displays through external adapter) embedded Display Port (eDP) internal connector LVDS through optional external adapter
Video Resolution	DP: Up to 4096 x 2160 @60Hz eDP: Up to 3840 x 2160 @60Hz HDMI: Up to 3840 x 2160 @30Hz LVDS: Up to 1920 x 1200 @ 60Hz
Mass Storage	Optional eMMC drive onboard M.2 SATA SSD slot (Socket 2 Key B Type 3042/2260 **) microSD Card slot SATA 7p M connector
Networking	2x Gbit LAN / Intel Gigabit Ethernet i21x family controller M.2 WWAN Slot for Modems (Socket 2 Key B Type 3042/2260 **) M.2 WLAN Connectivity Slot for WiFi/BT (Socket 1 Key E type 2230)
USB	2 x I2C + 8 x GPIOs on Feature connector Button / LED front panel header CIR (Consumer InfraRed) sensor microSIM slot for M.2 WWAN Modem Optional TPM 2.0 on-board
PCI-e	Power Supply +18V _{DC} ÷ +32 V _{DC} recommended +15V _{DC} ÷ +36 V _{DC} absolute RTC battery
Audio	Operating System Microsoft® Windows 10 Enterprise (64 bit) Microsoft® Windows 10 IoT Core Yocto (64 bit) Linux
Serial Ports	Operating Temperature* 0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (Industrial version)
Other Interfaces	Dimensions 101.6 x 101.6 mm (4" x 4")

* 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.
** SATA SSD and WWAN functionalities share the same slot and are therefore mutually exclusive.



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BLOCK DIAGRAM

