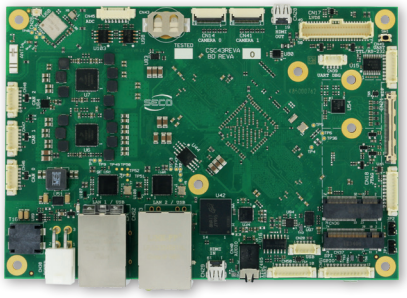
Single Board Computer

SBC-C43

SBC with NXP i.MX 8 Applications Processors in 3.5” form factor

Industrial ARM solution for IoT edge computing applications

early access



HIGHLIGHTS

CPU
NXP i.MX 8 Family

CONNECTIVITY
2x Gigabit Ethernet interfaces

GRAPHICS
2x Graphics accelerators Vivante GC7000 / XVSX or GC7000Lit/XVSX QuadMax and QuadPlus

MEMORY
Soldered down LPDDR4

Available in Industrial Temperature Range

GOLD PARTNER NXP

Wind River Partner Program PLATINUM · Linux · yocto PROJECT · android

MAIN FIELDS OF APPLICATION

- Biomedical/ Medical devices
- Digital Signage - Infotainment
- Edge Computing
- Industrial Automation and Control
- Internet of Things
- Smart Vision
- Vending

FEATURES

Processor	NXP i.MX 8 Family: **i.MX 8QuadMax**: 2x ARM Cortex®-A72 + 4x ARM® Cortex®-A53 + 2x Cortex®-M4F **i.MX 8QuadPlus**: 1x ARM Cortex®-A72 + 4x ARM® Cortex®-A53 + 2x Cortex®-M4F
Max Cores	8
Memory	Soldered down LPDDR4 memory, 64-bit interface, 1600MHz. Base configuration 2GB, up-scalable to 4GB, 6GB, 8GB
Graphics	2x Graphics accelerators Vivante GC7000 / XVSX or GC7000Lit /XVSX QuadMax and QuadPlus 1x embedded VPU, supporting H.265 (4K30) and H.264 (1080p60) decoding and H.264 (1080p30) encoding Supports 3 independent video outputs (total combined resolution 4K)
Video Interfaces	OUTPUTS: HDMI 2.0a Tx interface Optional eDP 1.4 interface Optional Single/Dual-Channel 18-/24- bit LVDS interface INPUTS: HDMI 2.0a Rx interface 2x 4-lanes MIPI-CSI Camera interfaces
Video Resolution	HDMI: Up to UltraHD (4K) LVDS, eDP: up to 1080p
Mass Storage	eMMC 5.1 Drive soldered on-board, up to 64GB 1x S-ATA interface available on M.2 Socket 2 Key B Slot (interface shared with PCI-e x1) microSD Card Slot 4MB QuadSPI Flash NAND (boot device only)
Networking	2x Gigabit Ethernet interfaces Combo WiFi 802.11 a/b/g/n/ac + BT LE 4.2 module with ceramic SMT antennas on-board M.2 Socket 2 Key B Slot for M.2 Modems M.2 Socket1 Key E Slot for WiFi + BT external modules

USB	1 x USB 3.0 Host port on Type-A socket 1x USB 2.0 OTG port on micro-AB socket 1x USB 2.0 Host port on external Type-A socket 1x USB 2.0 Host port on internal connector 2 x USB 2.0 ports available on M.2 Key B and Key E slots
PCI-e	2x PCI-e x1 ports, available on M.2 Socket 1 Key E and on M.2 Socket 2 Key B (pin shared with SATA interface) Slots
Audio	I2S Audio Codec HP + MIC interfaces, available on a single combo TRRS connector
Serial Ports	1x UART TTL 1x RS-232 / UART TTL configurable 1x RS-485 / RS-422 / UART TTL configurable 3x CAN interfaces
Other Interfaces	4x Analog Inputs 6x GPIOs SPI interface I2C interface Embedded additional RTC circuitry for lowest power consumption SIM dedicated slot
Power Supply	+12V_{DC} ± 10%
Operating System	Wind River Linux Yocto Android
Operating Temperature*	0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (Industrial version)
Dimensions	146 x 102 mm (5,75” x 4,02”)

*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