

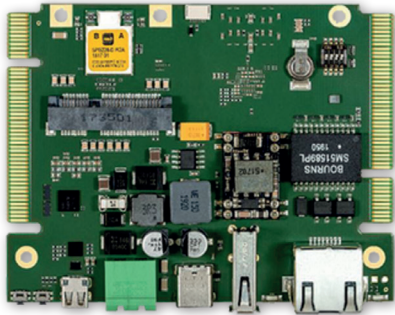
Single Board Computer



SBCSOM
by Keith & Koep

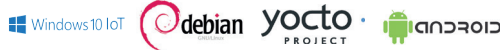
Modular Single Board Computer with i.MX 8M Mini/Nano

Modularly expandable ready to use Single Board Computer (SBC)

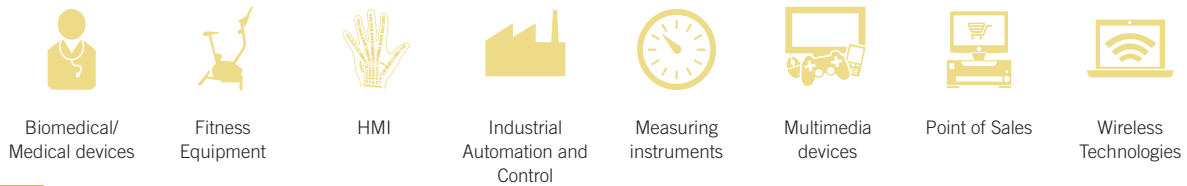


HIGHLIGHTS

CPU NXP i.MX 8M Mini Family	CONNECTIVITY Wifi/BT, 1x GbE, up to 2x USB 2.0, HDMI, Mini PCIe
GRAPHICS GC320 2D accelerator + GCNanoUltra 3D accelerator	MEMORY Soldered on Board LPDDR4-3200 memory, up to 8 GB



MAIN FIELDS OF APPLICATION



FEATURES

Processor	NXP i.MX 8M Mini Family based on ARM® Cortex®-A53 cores + general purpose Cortex®-M4 400MHz processor: i.MX 8M Mini Quad – Full featured, 4x Cortex®-A53 cores up to 1.8GHz i.MX 8M Mini Dual – Full featured, 2x Cortex®-A53 cores up to 1.8GHz i.MX 8M Mini Solo – Full featured, 1x Cortex®-A53 cores up to 1.8GHz i.MX 8M Mini Quad Lite Full featured, 4x Cortex®-A53 cores up to 1.8GHz i.MX 8M Mini Dual Lite – Full featured, 2x Cortex®-A53 cores up to 1.8GHz i.MX 8M Mini Solo Lite – Full featured, 1x Cortex®-A53 cores up to 1.8GHz	USB	1x USB 2.0 Type-C 1x USB 2.0 Type-A
Memory	up to 8 GB 32 bit LPDDR4	Audio	Audio Codec
Graphics	GC320 2D accelerator + GCNanoUltra 3D accelerator Embedded VPU (not for Lite processors), able to offer: VP9, HEVC/H.265, AVC/H.264, VP8 HW Decoding AVC/H.264, VP8 HW encoding OpenGL ES 2.0, OpenVG 1.1 support	Other Interfaces	System Connector 1: Power-Supply, 2x UART or SPI, I2C, USB, SDIO, MIPI-DSI (4ch), MIPI-CSI (4ch), PCIe, GPIO (24) System Connector 2: Power-Supply, 2x UART, QSPI, I2C, USB, Speaker, Headphone, Line-In, Microphone, SPDIF, I2S, SIOP (Ethernet, fiber), GPIO (42) FFC Connectors: i-MOD UART (RS232/485), i-MOD USB/I2C, KUK-Modis (LVDS/MIPI), MIPI-CSI, Camera, Speaker
Video Interfaces	LVDS Single/Dual Channel connector HDMI	Power Supply	12 ÷ 24 VDC
Video Resolution	Up to 1920x1080p60, 24bpp	Operating System	Windows 10 IoT Linux Debian Linux Yocto Android
Mass Storage	Onboard 4 Bit wide µSD Card Socket or onboard 8 Bit wide eMMC, eMMC	Operating Temperature*	-40°C ÷ 85°C (Industrial), -25°C ÷ 85°C (Extended Consumer), 0 ÷ 70°C (Consumer)
Networking	1x GbEthernet interfaces WLAN 2.4GHz/5GHz, 802.11 a/b/g/n/ac 2x2 MU-MIMO / Bluetooth 5.0 mPCIe socket for modems	Dimensions	95.0 x 73.0 x 20.0 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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