

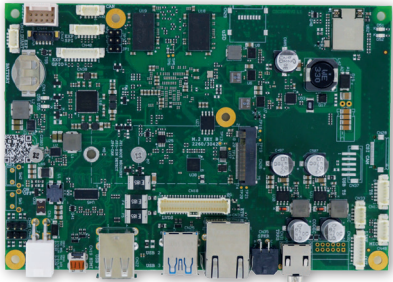
Single Board Computer



CUZCO

3.5" SBC with Rockchip RK3588 SoC

Octal Core Arm® Processing with NPU and Computer Vision AI for Higher Performance Industrial AI



HIGHLIGHTS

CPU Rockchip RK3588 Processor with embedded GPU, Video Codec and NPU	CONNECTIVITY 2x GbEthernet; M.2 Key M w/ PCI-e x4; M.2 Key B slot; M.2 Key E Slot; 2x RS-232, 2 x RS-232/422/485, 1x CAN
GRAPHICS Mali-G610 MC4 embedded GPU	MEMORY Soldered-down LPDDR4 memory, up to 32GB



MAIN FIELDS OF APPLICATION



Automation



Automotive



Autonomous retail



Biomedical/
Medical applications



Computer Vision



Industrial automation and control



Multimedia devices



Surveillance



Telco

FEATURES

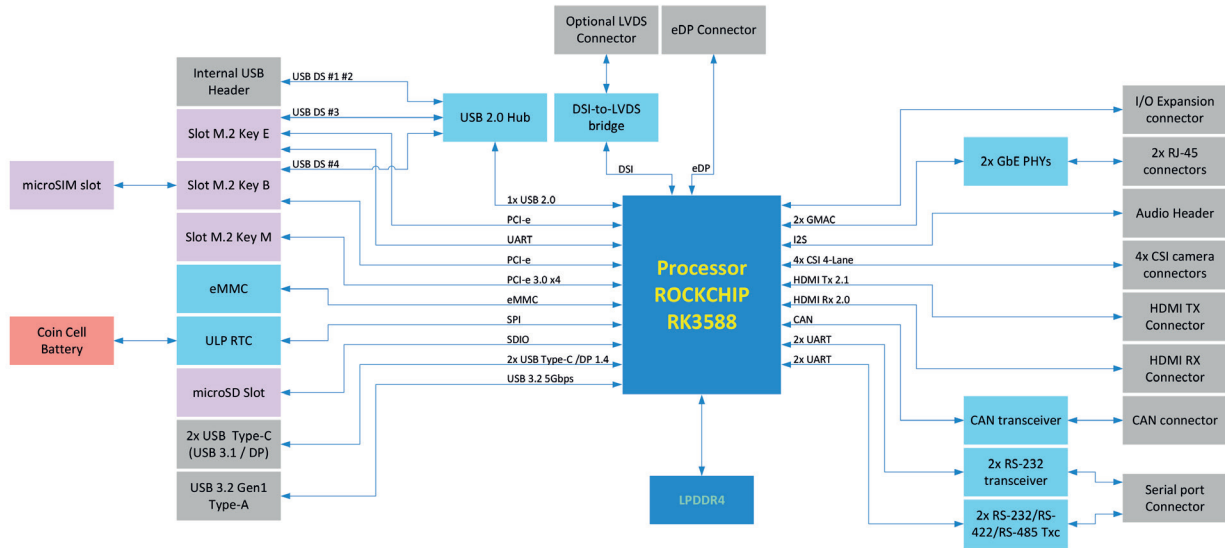
Processor Rockchip RK3588 processor <ul style="list-style-type: none"> 4x Cortex®-A76 cores + 4x Cortex®-A55 cores, 3 x Cortex-M0 cores Embedded GPU, Video Codec and Neural Processing Unit (NPU) 	Mass Storage eMMC 5.1 Drive soldered on-board microSD slot
Memory Soldered-down LPDDR4 memory, Quad-Channel 16-bit, up to 32GB	Networking 2x GbEthernet ports M.2 Socket 2 Key B slot for modem modules + microSIM card slot on-board M.2 Socket 1 Key E slot for WiFi/BT modules
Graphics Embedded Mali-G610 MC4 GPU OpenGL ES 3.2 / 3.1 / 2.0 / 1.1, Vulkan 1.2/ 1.1, OpenCL 2.0/1.2 Embedded VPU, able to offer: <ul style="list-style-type: none"> HW decoding: H.265 HEVC/MVC Main10 L6.1 (8K @60fps), H.264 AVC/MVC Main10 L6.0 (8K@30fps), VP9 Profile0/2 L6.1 (8K @60fps), MPEG-4, MPEG-2 (1080p @60fps) Real Time Encoding H.265/H.264 (up to 8K @30fps) Multi-channel parallel decoding and encoding on lower resolutions 	USB 2x USB Type-C slot with DP alt-mode support 1x USB Superspeed 5Gbps Type-A socket 2x USB 2.0 host port on internal pin header
NPU Up to 6TOPs Supports int4/int8/int16/FP16 hybrid operation Support deep learning frameworks: TensorFlow, MXNet, PyTorch, Caffe, TFLite, Onnx NN, Android NN	Audio Internal I2S audio header
Video Interfaces HDMI™ interface, supports 8K @ 60Hz as specified in HDMI 2.1 eDP interface Optional LVDS interface 2x DP1.4a interfaces on USB Type-C (alternate mode)	Serial Ports Internal header with 2x RS-232 only ports + 2x RS-232/RS-422/RS-485 configurable ports 1x CAN port
Video Resolution HDMI™: up to 7680x4320@60Hz eDP: up to 4K@60Hz DP: up to 8192x4320 @ 30Hz	Other Interfaces M.2 Key M slot with Gen3 PCI-e x4 interface microSIM Slot for optional M.2 WWAN modules (modem) Ultra-low Power RTC Internal expansion header
Video Inputs 1x HDMI™ input (micro) supporting 2160p@60 Hz as specified in HDMI 2.0 4x MIPI-CSI 4-lane connectors	Power Supply +19V _{DC} ÷ +24 V _{DC} RTC battery
	Operating System Linux Yocto Android
	Operating Temperature* 0°C to +60°C (Commercial version)*
	Dimensions 146 x 102 mm (3.5" form factor)

* 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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