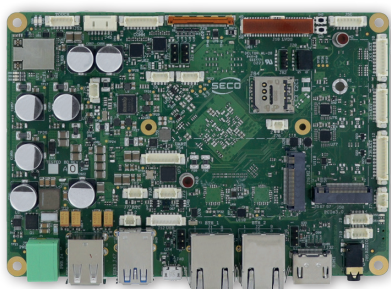## SBC-3.5-RK3568 — 3.5″ SBC with Rockchip RK3568 SoC

Up to 4K Multimedia Arm® Computing with Wireless and Wired Connectivity

HIGHLIGHTS

CPU
Rockchip RK3568 SoC

CONNECTIVITY
2x GbE; opt Wi-Fi; 2x RS-232 or RS-485, 2x CAN; M.2 slot for modem and on-board microSIM slot

GRAPHICS
Mali-G52 1-Core-2EE

MEMORY
Soldered-down DDR4-3200 memory, up to 4GB

Rockchip
瑞芯微电子

Linux · yocto PROJECT · Android

MAIN FIELDS OF APPLICATION

Coffee & Vending	Safety & Surveillance	Smart Devices	Digital Signage	Energy & Utilities

### FEATURES

Processor	Rockchip RK3568 processor · 4x Cortex®-A55 cores, up to 2.0GHz, 64-bit architecture, with Neural Processing Unit (NPU)	**USB**	2x USB 3.0 Type-A 1x USB 2.0 Type-A 1x USB 2.0 OTG micro-AB muxed with one USB 3.0 (used for Deep Recovery) 1x USB 2.0 internal pin header 1x USB 2.0 internal pin header, dedicated to touch screen
Memory	Soldered-down DDR4-3200 memory, up to 4GB	**Audio**	TRRS combo audio jack (stereo mic in, stereo line out) Mono speaker out (amplified 1.3Watt @8Ohm) on internal header 1x PDM signal ports on internal header
Graphics	Mali-G52 1-Core-2EE GPU · OpenGL ES 1.1/2.0/3.2 · Vulkan 1.0 and 1.1 · OpenCL 2.0 Full Profile Embedded Video CODEC · H.265/H.264/VP9 4K@60fps HW decoding · VP8/VC1/MPEG-4/MPEG-2/MPEG-1 1080p @60fps HW decoding · H.265/H.264 1080p@60fps HW encoding Supports 3 independent video outputs	**Serial Ports**	1x debug UART 1x JTAG port 2x 4 wire RS-232 / RS-422 / RS-485 (multistandard transceivers) on internal header 2x 2 wire TTL UART ports on internal header
Video Interfaces	HDMI® LVDS single / dual channel interface eDP 1.3 interface	**Other Interfaces**	2x 2-lanes MIPI-CSI camera connector or 1x 4-lanes M.2 Socket 2 Key M for AI accelerator modules Dedicated connector for I2C touch screen controller 8x GPIOs or 4x GPIOs + 4 A_{DC} (factory configuration alternatives) 2x CAN, 1x I2C, 1x SPI
Video Resolution	HDMI®: up to 4K x 2K @60Hz LVDS: up to 1920 x 1080 @60Hz eDP: up to 4096 x 2160 (4K)	**Power Supply**	+12V_{DC} .. +24V_{DC} range RTC battery
Mass Storage	eMMC 5.1 drive soldered on-board, up to 64GB (first boot device) microSD slot (second boot device) I2C flash QSPI flash (factory option)	**Operating System**	Linux Yocto Android
		Operating Temperature*	0°C to +60°C (Commercial version)*
Networking	2x Gigabit Ethernet ports, implemented using TI DP83867 Ethernet PHY on RGMII interface coming from SoC Optional on-boad M.2 1216 module WLAN 802.11 a/b/g/n/ac + BT 5.0 M.2 Socket 2 Key B for LTE module + microSIM card slot on-board	**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.

BLOCK DIAGRAM
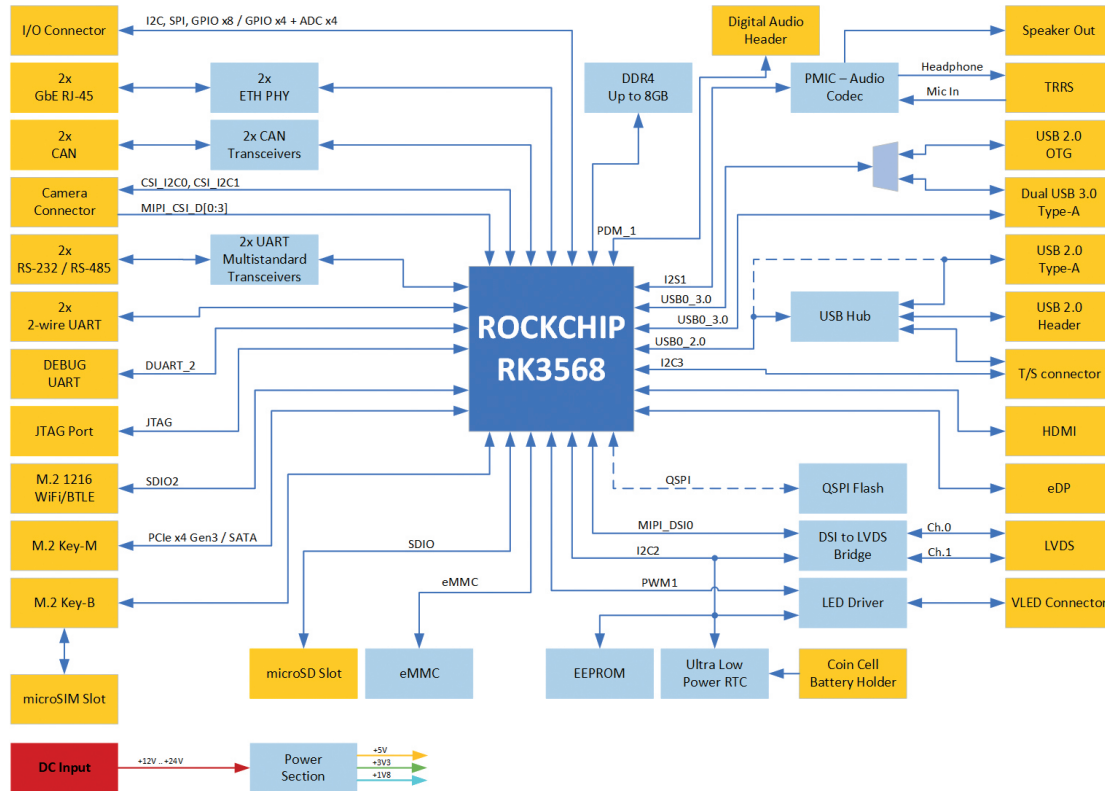
Streamline and expedite your edge computing implementations

EDGEHOG OS

A flexible operating system that adapts to your needs, thanks to the customization tool and Docker support. Reliability and security are built-in through a dual-partition system and native integration with Exein's robust AI-based protection.

DEVICE MANAGER

Update, configure, and manage remote devices. Optimize time and costs to maximize operational efficiency and security without the need for costly field interventions.

DATA ORCHESTRATION

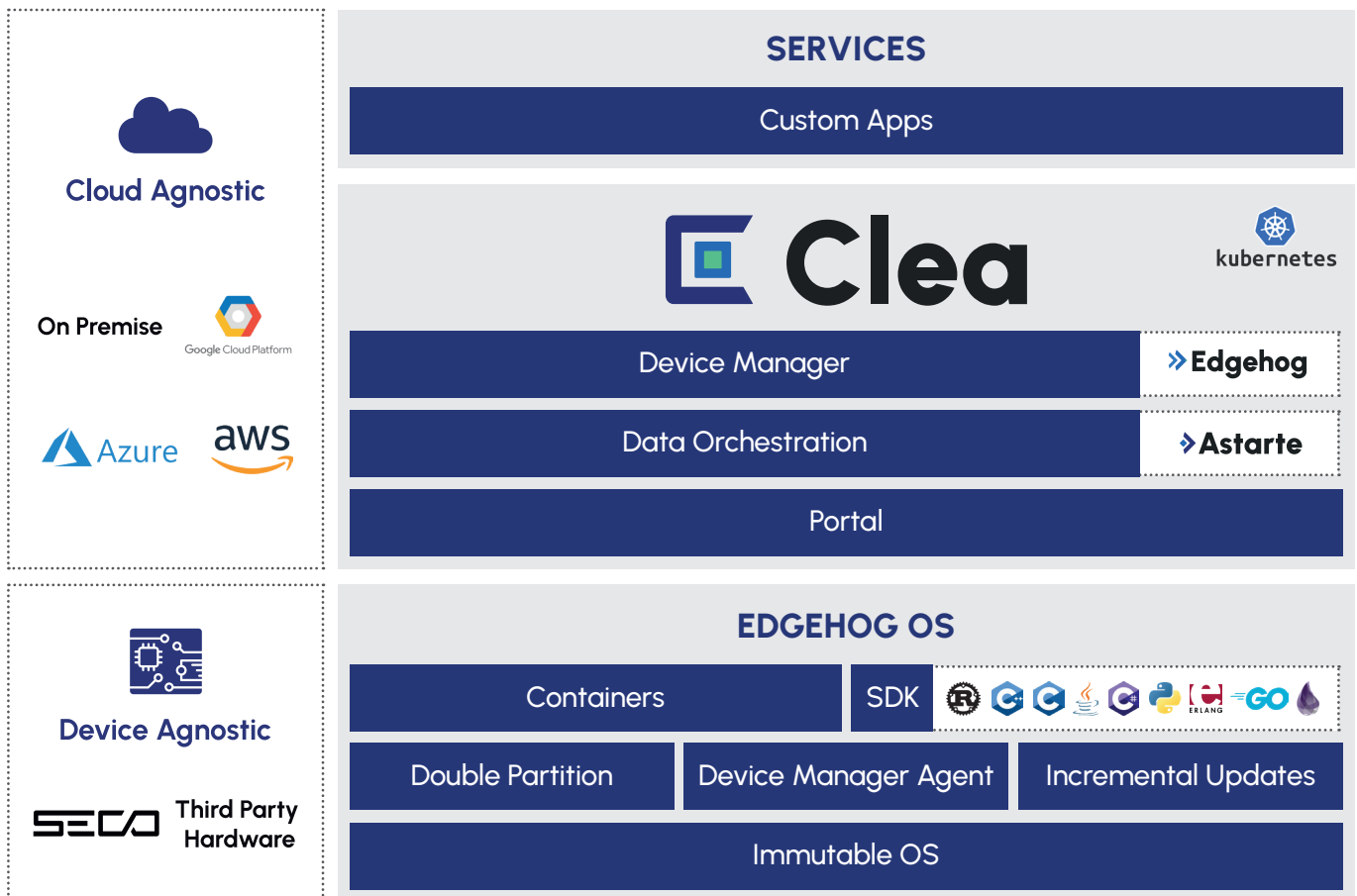Integrate third-party services, simplify data flows and analysis, and enhance business efficiency by enabling easy and fast utilization of AI.

PORTAL

Analyze data from remote devices, customize the user experience with applications tailored to user needs, and manage user rights, company access, and tenant privileges.

Cloud Agnostic

On Premise
Google Cloud Platform

Azure
aws

Device Agnostic

SECO Third Party Hardware

SERVICES

Custom Apps

Clea
kubernetes

Device Manager | » Edgehog

Data Orchestration | ⟩ Astarte

Portal

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