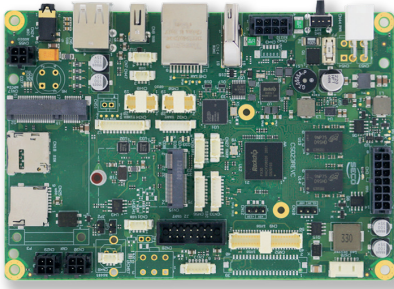# SBC

SBC-3.5-PX30 — 3.5″ SBC with Rockchip PX30 SoC

High-performance Android and Linux application processor designed for digital multimedia applications

HIGHLIGHTS

CPU
Rockchip PX30 Processor

CONNECTIVITY
10/100 Ethernet; 4x USB 2.0 ports; M.2 Key E Slot for WiFi + BT modules; miniPCI-e slot for modems; up to 2x RS-232 + 1 x RS-485 + 1x CAN + 4x UARTs

GRAPHICS
Mali-G31 GPU

MEMORY
Soldered-down DDR3L memory, up to 4GB
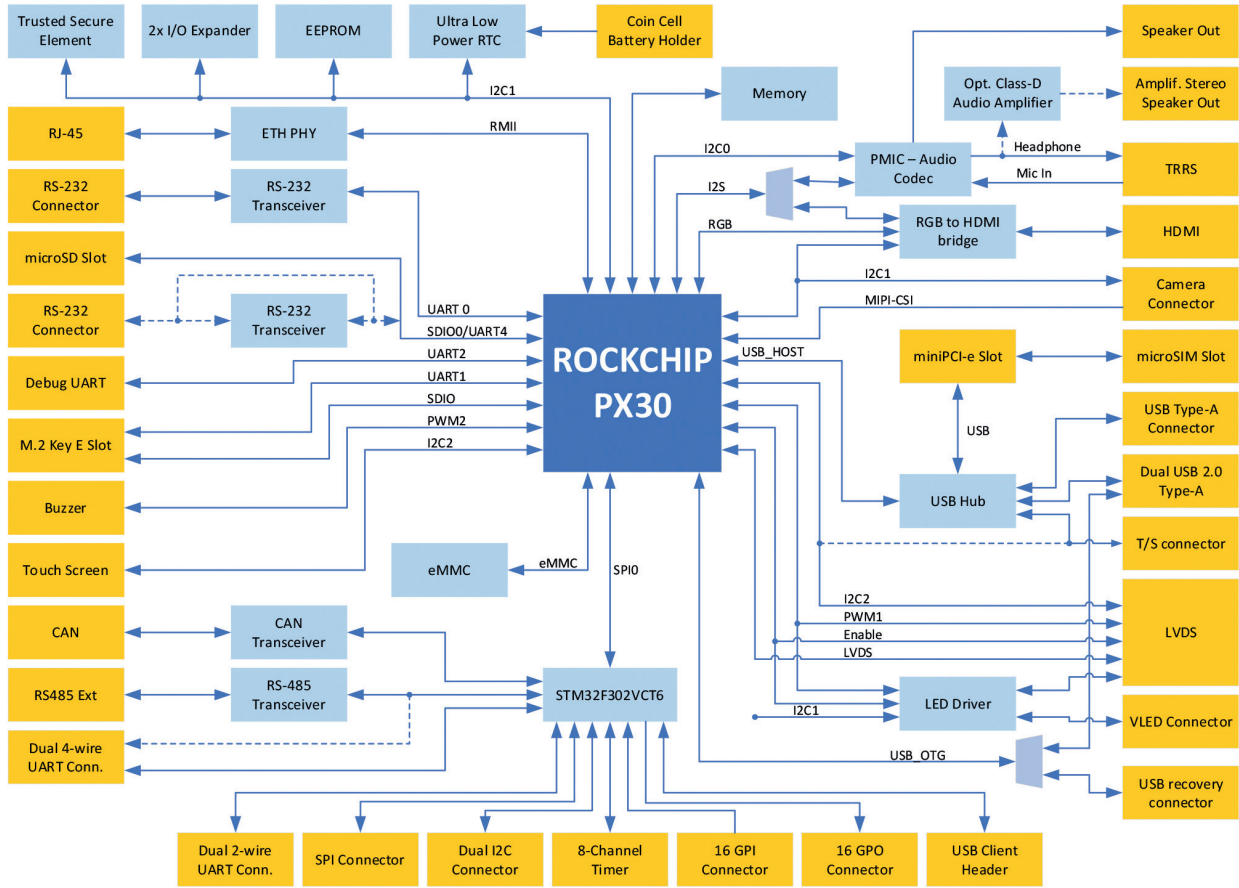
MAIN FIELDS OF APPLICATION

Smart Devices

Digital Signage

FEATURES

Processor	Rockchip PX30 processor, 4x Cortex®-A35 cores	
Max Cores	4	
Memory	Soldered-down DDR3L memory, up to 4GB total, 32-bit interface	
Graphics	Mali-G31 GPU with High performance dedicated 2D processor OpenGL ES 1.1 / 2.0 / 3.2, Vulkan 1.0, OpenCL 2.0, DX11 FL9_3 Embedded VPU, able to offer: · Multi-format 1080p 60fps video decoders (H.265, H.264, VC-1, MPEG-4, VP8) · H.264 1080p@30fps HW encoding Supports 2 independent video outputs	
Video Interfaces	LVDS Single / Dual Channel interface HDMI® interface	
Video Resolution	HDMI® Up to 1920x1080p LVDS Up to 1280x800	
Mass Storage	eMMC 5.1 Drive soldered on-board, up to 64GB Optional microSD Slot	
Networking	1x 10/100 Ethernet port Optional M.2 Socket 1 Key E Slot for WiFi/BT LE external modules Optional miniPCI-e slot (USB interface only) for external modem modules	
USB	3x USB 2.0 Host ports on standard Type-A slots USB Recovery internal connector 2x USB 2.0 ports on internal pin headers	
Audio	PMIC embedded Audio Codec Stereo audio out on internal header TRRS combo jack for Headphone and Mic In Line Out audio jack or I2S Audio Class-D amplifier with stereo out available on internal connector (factory alternatives) Buzzer on-board	

Serial Ports	1x TTL or RS-232 port (factory alternative) 1x Debug UART 1x TTL or RS-232 port (factory alternatives to microSD slot) 1x RS-485 port on internal connector 1x CAN port
Other Interfaces	miniSIM Slot for USB Modem modules on miniPCI-e form factor Optional CSI Camera connector Ultra-low Power RTC Trusted Secure Element 4-Channel LED Driver connector Microcontroller Programmable Interfaces: 2x 4-Wire UARTs on internal connector 2x 2-Wire UARTs on internal connector 1x SPI connector 2x I2C on internal connector 8-channel timer connector 16x GPIs @3.3V (5V tolerant) 16x GPOs @3.3V
Power Supply	+12V$_{DC}$ ÷ +24 V$_{DC}$ RTC battery
Operating System	Linux Yocto Android
Operating Temperature*	0°C ÷ +60°C (Commercial Temperature range) -20°C÷ +85°C (Extended Temperature range)
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

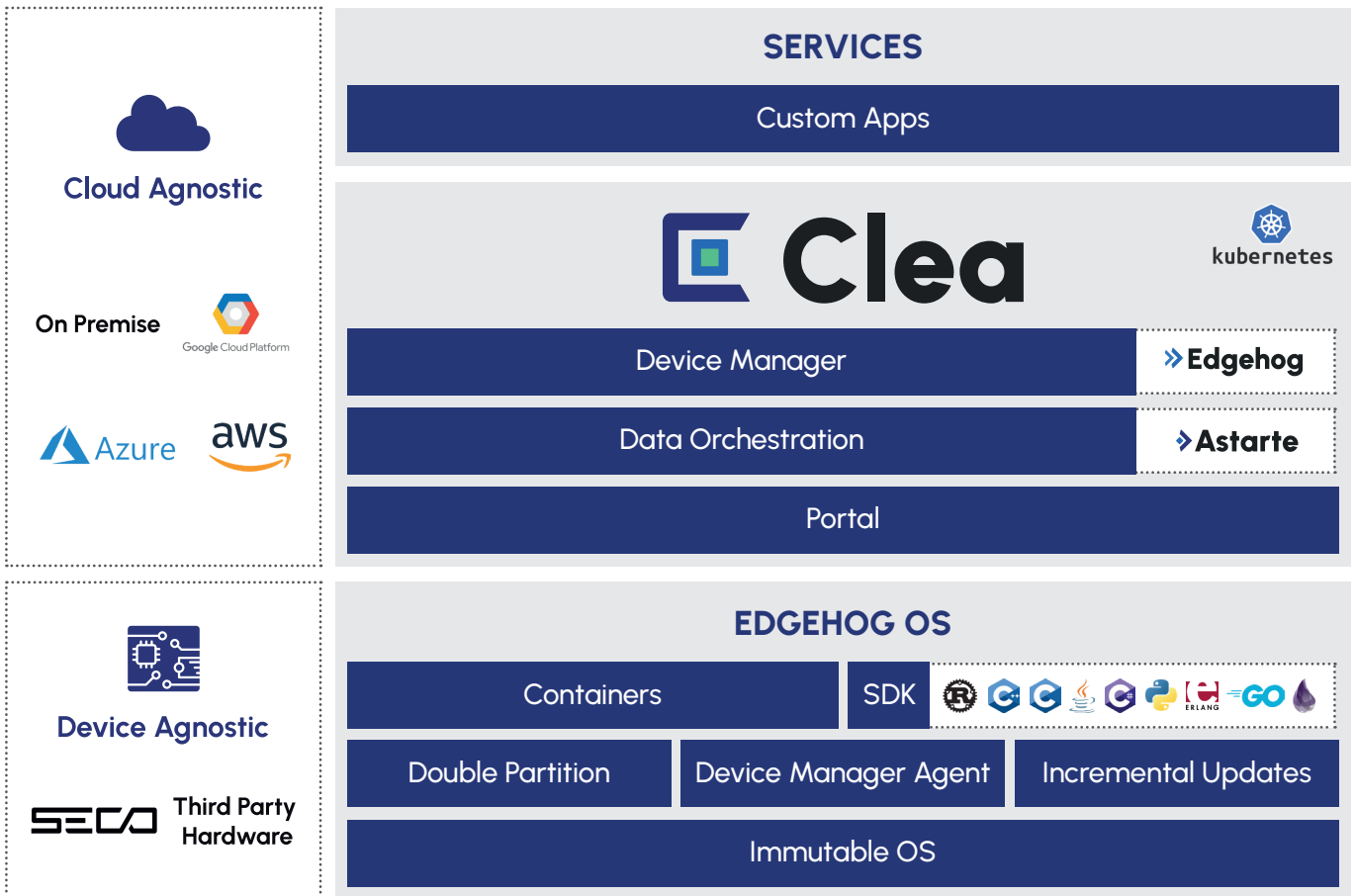Integrate third-party services, simplify data flows and analysis, and enhance business efficiency by enabling easy and fast utilization of AI.

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

SERVICES

Custom Apps

Clea
kubernetes

Device Manager | Edgehog

Data Orchestration | Astarte

Portal

Device Agnostic

SECO — Third Party Hardware

EDGEHOG OS

Containers | SDK

Double Partition | Device Manager Agent | Incremental Updates

Immutable OS

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