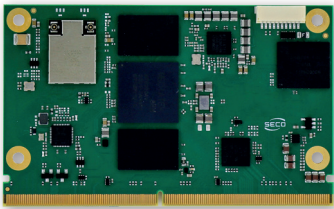# SMARC

SOM-SMARC-Genio700	SMARC® Rel. 2.1.1 module with MediaTek Genio 700 Applications Processors

High-performance multimedia Arm® processing and AI acceleration in compact SMARC® module.

HIGHLIGHTS

CPU
MediaTek Genio 700

CONNECTIVITY
Up to 1x Gb Ethernet, 1x USB 3.1, 2x USB 2.0, 1x CAN, 4 x UART, opt Wi-Fi +BT 5.0, MIPI-CSI, 1x I2S

GRAPHICS
Mali-G57 MC3 GPU

MEMORY
Soldered-down LPDDR4X-3733 memory, up to 8GB total

Available in Industrial Temperature Range

SMARC module · SGeT STANDARDIZATION GROUP FOR EMBEDDED TECHNOLOGIES · MEDIATEK

Linux · yocto PROJECT · android

MAIN FIELDS OF APPLICATION

Coffee & Vending

Medical

Smart Devices
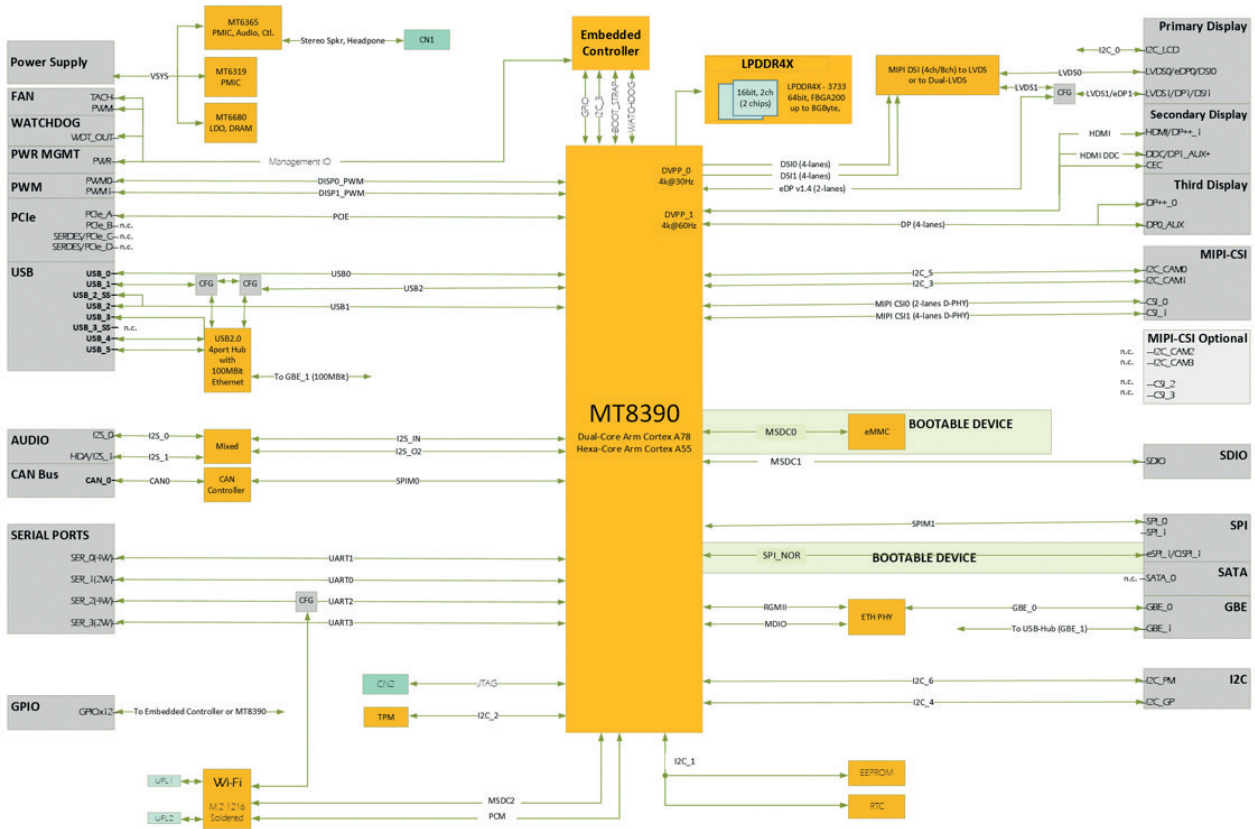
Digital Signage

FEATURES

Processor	2x Arm® Cortex®-A78 @ 2.2 GHz 6x Arm® Cortex®-A55 @ 2.0 GHz AI Accelerator: Cadence Tensilica VP6 with Mediatek APU3.0 System Companion Chip: MDSP RV55 DSP: Candence Tensilica HiFi5 Image Signal Processor (ISP)	CAN Bus	1x CAN interfaces (via SPI CAN Controller)
Memory	Soldered-down LPDDR4X-3733/LPDDR4-3200 memory, up to 8GB total	Other Interfaces	GPIOs MIPI-CSI camera interface General Purpose I2C Bus PWM ports
Video Interfaces	LVDS dual channel or eDP (factory alternatives) HDMI® DP	Security	TPM
Video Resolution	MIPI/eDP: up to 2560x1600p60 HDMI®/DP: up to 4K60	Embedded Controller Functionalities	Power management Watchdog Boot select signals GP I/O
Mass Storage	eMMC 5.1 Drive soldered on-board, up to 64GB (boot device) SDIO Interface	Power Supply	$+5V_{DC} \pm 5\%$ and $+3.3V\_RTC$
Graphics	Mali-G57 MC3 GPU	Operating System	Linux Yocto Kirkstone Android T (13)
Networking	1x Gigabit Ethernet (RGMII) 1x 100Mbit Ethernet (USB) Optional Wifi 802.11 a/b/g/n/ac 2x2 and BT 5.3 utilising onboard module with M2.1216 standard form factor	Operating Temperature*	0 ÷ +60°C (Commercial Range) -20 ÷ +85°C (Extended Commercial Range) -40 ÷ +85°C (Industrial Range)
USB	1x USB3.1 1x USB2.0 Host/Slave 4x USB2.0 Host	Dimensions	82 x 50 mm
Audio	2x I2S port		
Serial Ports	2x UART (4-wires) 2x UART (2-wires)		

*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

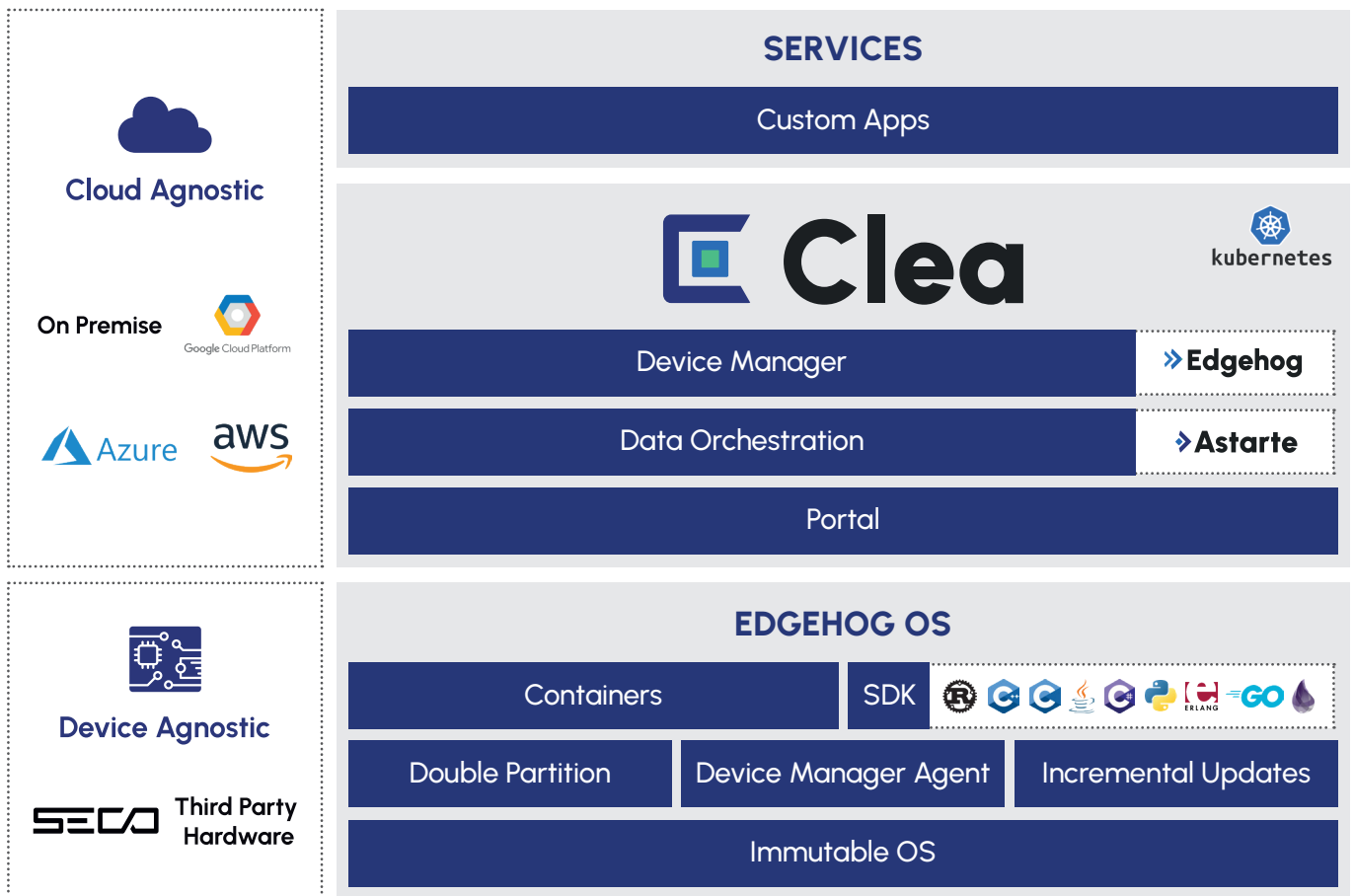Integrate third-party services, simplify data flows and analysis, and enhance business efficiency by enabling easy and fast utilization of AI.

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

Scan to know more about our solution

EDGEHOG OS

CLEA DOCS

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