SOM-SMARC-QCS5430

SMARC® 2.1.1 module powered by Qualcomm® Dragonwing™ QCS5430 processor

SMARC® module for high performance low power applications powered by the Dragonwing QCS5430 processor

HIGHLIGHTS

CPU
Qualcomm® Dragonwing™ QCS4530 processor

CONNECTIVITY
2x Gigabit Ethernet

AI ACCELERATOR
Embedded AI accelerator (Up to 9 INT8 TOPS)

MEMORY
LPDDR5-6400 up to 12GB

Available in Industrial Temperature Range

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MAIN FIELDS OF APPLICATION

Medical

Safety & Surveillance

Industrial Automation

Digital Signage

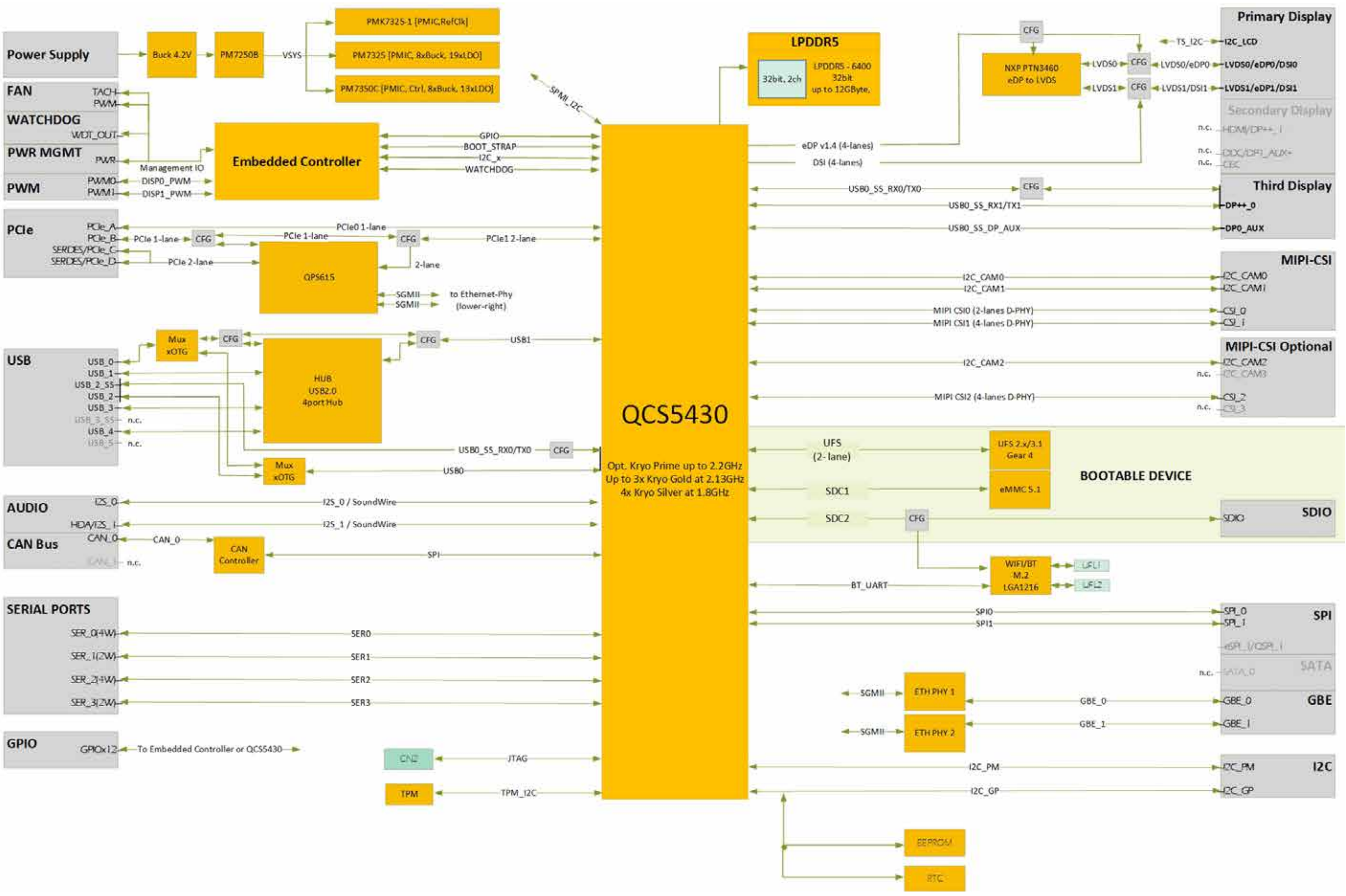
FEATURES

Processor	Qualcomm® Dragonwing™ QCS5430 FP1/FP2: Opt. Kryo Prime core up to 2.2GHz Up to 3x Kryo Gold cores @ 2.13GHz 4x Low-Power Kryo Silver Cores @1.8GHz Embedded AI accelerator AI-cDSP up to 9 INT8 TOPS
Memory	Soldered-down LPDDR5-6400 memory, up to 12GB total, 32-bit interface 2 channels
Video Interfaces	LVDS dual channel 18/24 bit, eDP V1.4, MIPI DSI 4 lanes, Display Port through USB 3.1 Type C
Video Resolution	Primary display: FHD+ @120 fps Secondary display: up to 4k Ultra HD @60Hz
Graphics	Qualcomm Adreno ™ 642L GPU
Mass Storage	eMMC 5.1 drive soldered on-board, up to 64GB (boot device) SD 4-bit interface (boot device) Opt. UFS 2.x/3.1 flash
Networking	2x Gigabit Ethernet interfaces Opt. Wi-Fi + BT5.0
USB	1x USB 3.1, 1x USB 2.0 OTG , 1x USB 2.0 or 4x USB 2.0 (Hub option)
PCI-e	PCIe lanes Gen3: 2 ports x1 lanes, 1 port x2 lanes (QPS615)
Camera Interface	2x 4-Line MIPI CSI, with ISP support
Audio	2x I2S

Serial Ports	2x UART (RX/TX/RTS/CTS), 2x UART (RX/TX)
CAN Bus	1xCAN via SPI
Other Interfaces	I2C Ultra Low Power RTC 2xPWM
Security	Optional TPM 2.0 on-board
Embedded Controller Functionalities	FAN Watchdog Power Management I/O Signals
Power Supply	5V DC (+5V Standby opt)
Operating System	Microsoft Windows 11 IoT Enterprise Yocto (Linux 64 Bit) Android
Operating Temperature*	0 to +60°C (Commercial Range) -30 to +85°C (Industrial Range)
Dimensions	82 x 50 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.

BLOCK DIAGRAM



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Streamline and expedite your edge computing implementations

Clea 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.

Clea Edgehog

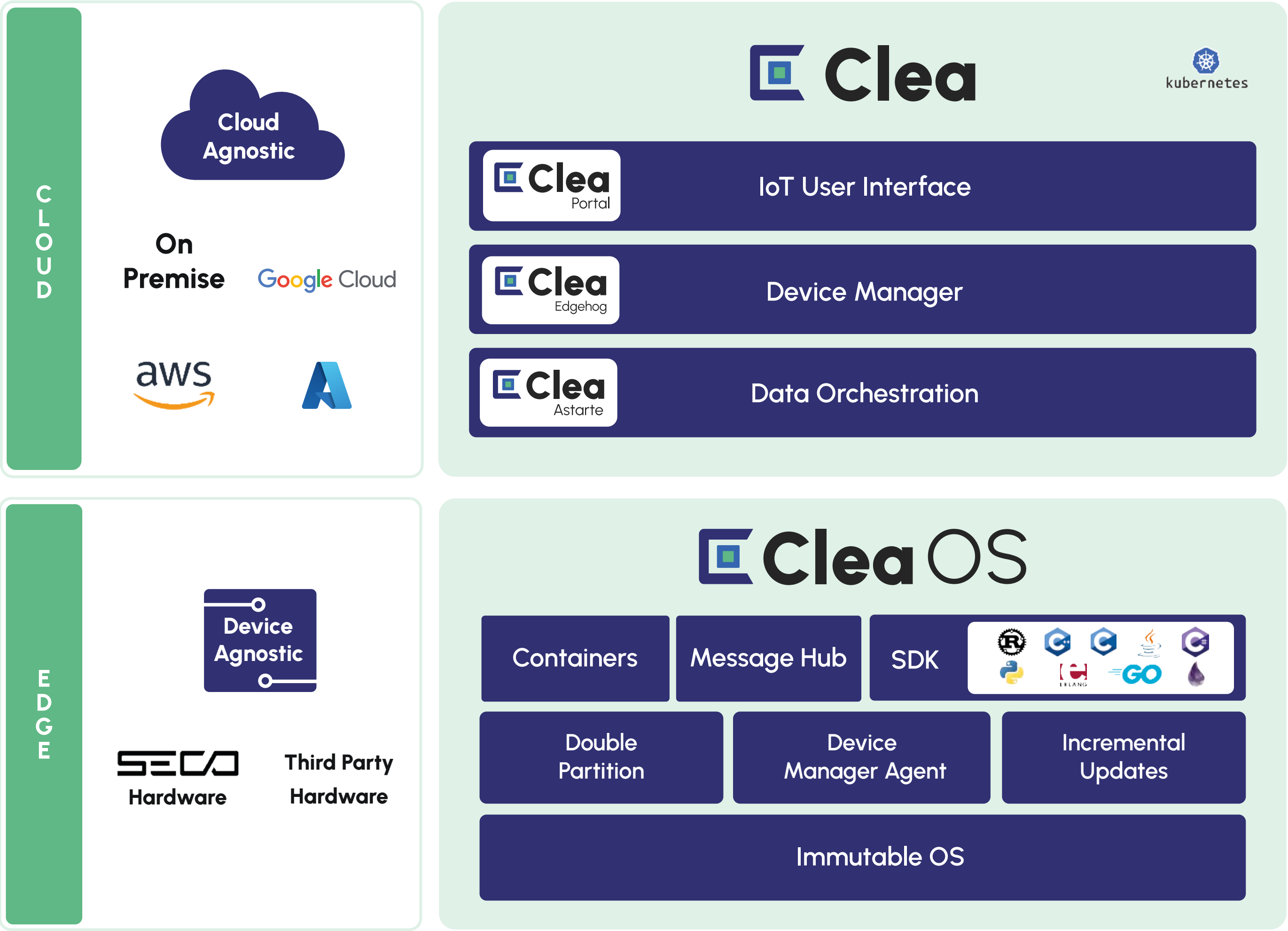
Update, configure, and manage remote devices. Optimize time and costs to maximize operational efficiency and security without the need for costly field interventions.

Clea Astarte

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

Clea 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

Cloud Agnostic

On Premise

Google Cloud

aws

Clea

kubernetes

Clea Portal — IoT User Interface

Clea Edgehog — Device Manager

Clea Astarte — Data Orchestration

EDGE

Device Agnostic

SECO Hardware

Third Party Hardware

Clea OS

Containers

Message Hub

SDK

Double Partition

Device Manager Agent

Incremental Updates

Immutable OS

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Clea OS

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