Sapphire Stream Technology

SQC5430 SOM





Universal Carrier Board

SQC5430 SOM (System on Module) is integrated with Qualcomm® QCS5430 SoC, a 6 nm processor with superior performance, power efficiency, and powerful computing (~3.5 TOPS). It supports 4K@30FPS video decoding and 4K@30FPS video encoding, four MIPI CSIs, as well as a rich set of peripheral interfaces, including GPIO, UART, I2C, I3C, SPI, USB 3.1, DSI and PCIe. SQC5430 SOM is a high performance AIoT SOM for building handheld devices, industrial robots, service robots, rugged tablet and edge computing, providing customers with hardware interfaces and software SDK to validate functions and build the prototype quickly.

Applications

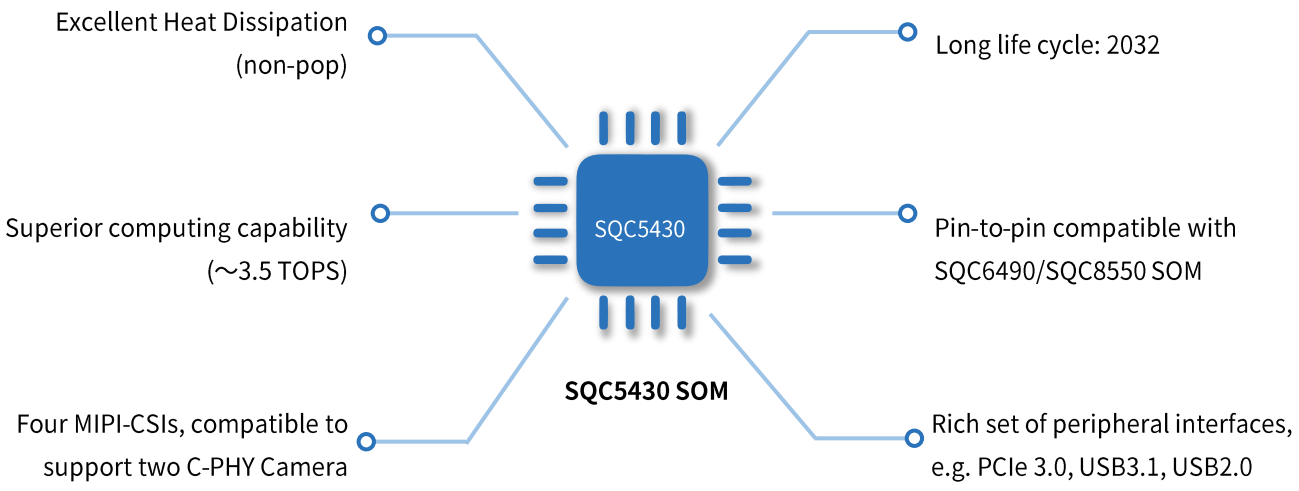
Rugged Handheld

Rugged Tablet

Edge Computing

Service Robot

Industrial Robot



SQC5430 SOM Specifications

Category	SQC5430 SOM
Platform	Qualcomm® QCS5430 FP1 as default Qualcomm® Kryo™ CPU 670 • Kryo Gold: Two high-performance cores at 2.1 GHz • Kryo Silver: Four low-power cores at 1.8 GHz Qualcomm® Adreno™ GPU 6xx, Adreno 633 VPU, Adreno DPU 1075 Qualcomm® Compute Hexagon™ DSP with dual HVX, Hexagon Co-processor (Hexagon CP) 2.0 and Hexagon Tensor Accelerator Qualcomm® Spectra™ 570L image processing
Memory	LPDDR4x 8GB + UFS2.2 128GB, uMCP
Video Encode	4K@30FPS for H.264/H.265
Video Decode	4K@60FPS for H.264/H.265/VP9
Display interfaces	1x MIPI-DSI 4-lane; 4K@30FPS via DSI;
Camera Interfaces	4 x 4-lane MIPI CSI D-PHY (2 of them compatible to support C-PHY)
Peripherals	1 x USB 3.1 with DP, 1 x USB2.0, PCIe (1x PCIe Gen3 1-lane, 1 x PCIe Gen3 2-lane), 2 x SoundWire, 2 x SDC (4-bit), 3 x DMIC interfaces, GPIOs, QUPs (UART/I2C/SPI)
Operating Environment	Operating Temperature: -25°C ~ +75°C [1)]
Form Factor	LGA
Certification	RoHS*/REACH*
Voltage	3.4V~4.5V
Dimensions	39mm x 33mm x 2.75mm (excluding height of the bottom shielding case)
OS Support	Android 13 LU/LE (Planning)

[1)]: The SOM operating temperature shall not exceed relevant IC temperature scope.

*: Planning

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SQC5430 Development Kit Specifications



Category	SQC5430 Development Kit
SOM on board	SQC5430 SOM (Default: FP1)
Display Interfaces	1 x HDMI OUT 1 x DP V1.4 (over Type-C)
Audio Interfaces	1 x Speaker out 1 x HDMI IN with Audio (Over I2S interface) 1 x HDMI OUT with Audio (Over I2S interface)
Camera Interface	2 x 4-lane D-PHY camera 2 x GMSL
General Interfaces	1 x USB 3.1 Type C 7 x USB 3.0 Type A 2 x Micro USB for debug (one for 5G/LTE module debug) 1 x SDIO Wi-Fi module 1 x TF card socket (no-PoR) 1 x SIM card socket 2 x 1000M Ethernet port 1 x M.2 for 5G/LTE module 1 x HDMI OUT 1 x HDMI IN 2 x DMIC connector, supporting up to 6 DIMCs 2 x DB9 connectors (for RS232 and RS485 respectively) 1 x CAN 1 x HS connector 1 x 3.5mm connector 1 x Fan connector
Power Supply	DC in 24V
Operating Environment	Operating Temperature: -35°C ~ +75°C
Dimension	150mm x 200mm
OS Support	Android 13 LU/LE (Planning)

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