SoM-500

System on Module with Qualcomm® QCS5430 SoC

Feature



The Sysgration SOM-500, powered by the Qualcomm[®] QCS5430 chipset, is a compact and efficient System on Module designed for next-generation AloT edge devices. Built on a 6nm architecture, it delivers a strong balance of Al/ML performance, low power consumption, and cost-efficiency, making it ideal for applications that demand real-time processing with constrained power budgets.

This module is particularly suited for video telematics, AI cameras, video collaboration terminals, and industrial handhelds, thanks to its advanced multimedia support and flexible I/O options. It features multi-channel camera input, 4K video encode/decode, and MIPI/PCIe interfaces, enabling seamless integration across various industrial and commercial use cases. Whether deployed in transportation systems, field service tools, or intelligent surveillance devices, the SOM-500 provides a scalable and robust foundation for building intelligent edge solutions.

Specification

Platform	Qualcomm® QCS5430 Qualcomm® Kryo CPU 670 Qualcomm® Adreno GPU 642L, 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	4GB +128GB
Al Performance	3.5 TOPS
Video Encode	4K30 fps encode
Video Decode	4K60 fps decode
Display Interfaces	FHD+(2520x1200)@120 fps 1x 4-lane DSI D-PHY
Camera Interfaces	4x 4-lane CSI
Interface	1x USB 3.1, DP over Type-C 1x USB 2.0 1x 1-lane PCIe Gen3 QUPs (UART/I2C/SPI/GPIO)
Operating Environment	Operation Temperature -25°C ~ +75°C Operation Humidity 5% - 95%, non condensing
Mounting	Board to Board Connector
Voltage	3.4V~4.5V, Typ. 3.8V
Dimensions	50mm x 33mm
OS Support	Android 14, Yocto Linux

SYSGRATION®

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All product specifications are subject to change without notice.