

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 AIoT edge devices. Built on a 6nm architecture, it delivers a strong balance of AI/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

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| 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 |
| AI 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 |