



Product Brief

SagireEdge™ AI 6490 SOM

Powered by the Qualcomm® QCS6490 SoC

Highlights

- Low power, compute intensive camera and Edge AI Applications with up to 12 TOPS
- Support for AI deep learning training and deployment models
- Preloaded with a Ubuntu Linux O/S with Android coming soon
- Long life support
- Production Ready
- Based upon Qualcomm® QCS6490 SoC with 8GB RAM/128GB UFS Flash in a μMCP package.
- Supports Wi-Fi 6E and BT 5.2
- Extensive range of I/O, including Ethernet, USB3.1, MIPI-CSI, eDP, CAN, and PCIe
- Extended temperature range
- SMARC Compliant Format

Features

The SagireEdge™ AI 6490 SOM is based upon Qualcomm® QCS6490 System on Chip (SoC) and delivers high performance processing, true AI computing and power efficiency at the Edge.

The Qualcomm® QCS6490 SoC supports a powerful heterogeneous computing architecture with eight high-end 64-bit applications processors, a Qualcomm® AI Engine, three top class image signal processors (ISPs) with support for up to a 192 MP camera, as well as the new Qualcomm® Hexagon™ Tensor Accelerator (HTA). The integrated Wi-Fi 6E and enhanced Bluetooth 5.2 offers battery-saving and enhanced security for robust connections.

The SagireEdge™ AI 6490 SOM includes Sagire AI Studio™, an optimized stack that supports AI modeling, deployment, and execution. The combined libraries and infrastructure accelerates the development and distribution of cloud-to edge industrial AI applications.

The Smart Mobility ARChitecture (SMARC) compliant form factor is designed to enable digital transformation at the outer edge for size, weight, power and cost sensitive applications. The standardized format of the SMARC SOM facilitates fast development and enables new designs to be quickly created, resulting in significantly reduced time to market.



SagireEdge™ AI 6490 SOM

Specifications

System	Processor	QCS6490 System on Chip (SoC) with 8x Kryo 670 CPUs (1 x 2.7 GHz, 3 x 2.4 GHz & 4 x 1.9 GHz)
	Supported OS	Ubuntu Linux with Android coming soon
	RAM	8GB LPDDR5
	Flash Storage	128GB UFS
I/O (SMARC Edge Connector)	Display	1 x MIPI-DSI or 1 x eDP
	Camera	3 x 4-Lane MIPI-CSI 1 x 2-Lane MIPI-CSI
	Ethernet	1 x GbE LAN
	USB	2 x USB 2.0 (1 x OTG) 2 x USB 3.1
	PCIe	1 x PCIe Gen3 – 2 Lane
	General I/O	4-bit SD, 12 x Digital IO, 3 x I2C, 1 x SPI, 2 x UART, 1 x PWM, 1 x CAN
Wireless	Bluetooth	Bluetooth 5.2
	Wi-Fi	WiFi 802.11 ax (6E)
Video	Spectra™ Camera	64 MP / 36 + 22 MP / 3x22 MP at 30fps ZSL 192 MP non-ZSL
	Adreno™ VDU	H.265, H.264 and V9 encode and decode with HDR10 and HDR10+ playback support. 4K60 decode and 4K30 encode
	Adreno™ GPU	Open GL ES 3.2, Open CL 2.0, Vulkan 1.x, DX FL 12
Operating Environment	Temperature	-20 ~ 60 °C

Purchasing Information

Model	Part Number	Processor
SagireEdge™ AI 600 SOM	SEA-6490-SOM	QCS6490 SoC



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