Sapphire Stream Technology

# SQC6490W SOM




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User: None
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SST SQC6490W SOM (System on Module) is integrated with Qualcomm® QCS6490 SoC, a 6nm processor with superior performance, power efficiency and powerful computing (12.5 TOPS). It supports 4K@60FPS video decoding, 4K@30FPS video encoding, Wi-Fi 6E with DBS, Long Range Bluetooth, five MIPI CSIs, as well as a rich set of peripheral interfaces, including GPIO, UART, I2C, I3C, SPI, DSI, USB 3.1 and PCIe. SQC6490W 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

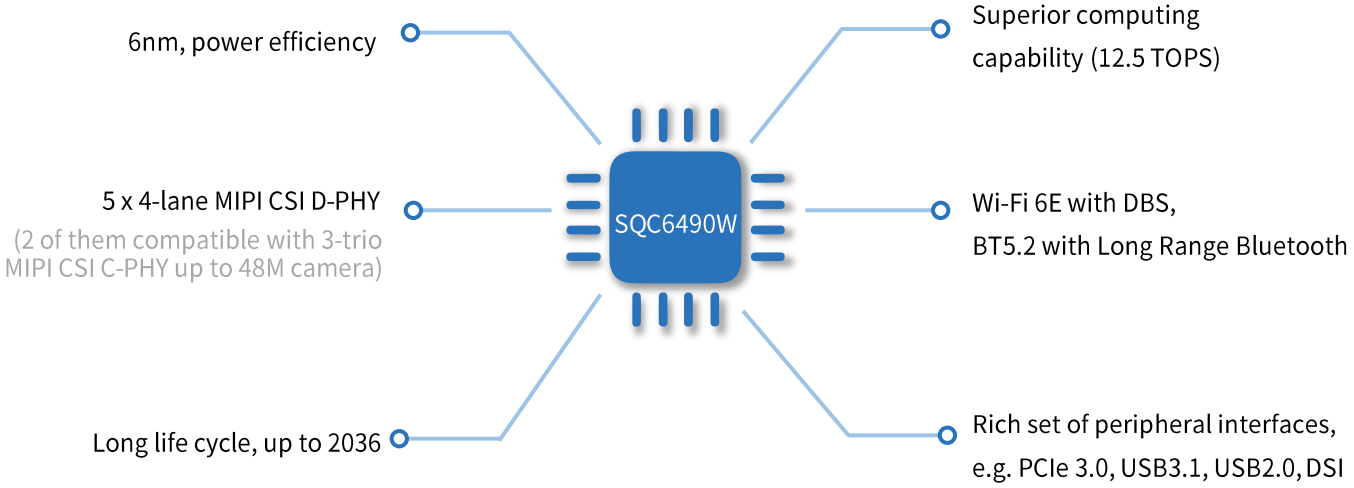

Rugged Tablet


Edge Computing


Service Robot


Industrial Robot

## Features



## Specifications

| Category | SQC6490W |
|---|---|
| **Platform** | Qualcomm® QCS6490<br>Qualcomm® Kryo™ CPU 670<br>Qualcomm® Adreno™ GPU 642L, Adreno 633 VPU, Adreno DPU 1075<br>Qualcomm® Compute Hexagon™ DSP with dual HVX, Hexagon Co-processor (Hexagon CP) 2.0 and Hexagon Tensor Accelerator Qualcomm® Spectra™ 570L image processing |
| **Memory** | 8GB+128GB uMCP |
| **Connectivity** | 802.11 ax over PCIe with DBS, 2x2 MIMO (Wi-Fi 6E), Bluetooth 5.2 |
| **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;<br>4K@30FPS via DSI;<br>4K@60FPS display support over DisplayPort |
| **Camera Interfaces** | 5 x 4-lane MIPI CSI D-PHY<br>(2 of them compatible with 3-trio MIPI CSI C-PHY up to 48M camera) |
| **Peripherals** | 1 x USB 3.1 with DP, 1 x USB2.0, 1 x PCIe Gen3 2-lane, 2 x SoundWire, 1 x SDC for SD card, 3 x DMIC Interfaces, GPIOs, QUPs (UART/I2C/SPI) |
| **Operating Environment** | Operating Temperature: -25°C ~ +75°C [1)] |
| **Form Factor** | LGA |
| **Certification** | FCC/CE |
| **Voltage** | 3.4V~4.5V, Typ. 3.8V |
| **Dimensions** | 42.5mm x 35.5mm x 2.7mm |
| **OS Support** | Android13, LU, LE |

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

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