

Aikri QCS6490 LGA System on Module

Based on the Qualcomm® QCS6490 SoC



1 **Transportation & Logistics**

2 **Smart Warehousing**

3 **Retail**

4 **Manufacturing**

5 **Healthcare**

6 **Ecommerce**

About eInfochips

eInfochips, an Arrow Electronics company, is a leading provider of digital transformation and product engineering services. eInfochips accelerates time to market for its customers with its expertise in IoT, AI/ML, security, sensors, silicon, wireless, cloud, and power. eInfochips being a Qualcomm Snapdragon Technology Partner (STP) offers turnkey product designs on multiple Snapdragon and other SoCs of Qualcomm® and have enabled global customers with Qualcomm based product designs.

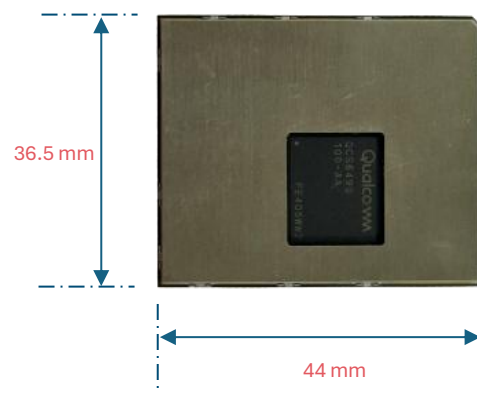
eInfochips Aikri QCS6490 SoM

The Aikri 6490 LGA System on Module (SoM) is based on Qualcomm® QCS6490 System on Chip and delivers greater performance, better graphics, and broader connectivity options. This compact SoM integrates a 64-bit Octa-Core application processor Kryo™ 670 CPU, Adreno™ GPU 643, Hexagon™ DSP with HVX and Hexagon Tensor Accelerator, AI Engine that features a fused AI-accelerator architecture and Spectra™ ISP 570L image-processing engine to provide exceptional performance at low power. The SoM supports Wi-Fi 6E and Bluetooth 5.2 and provides excellent processing capabilities of multiple UltraHD video streams with enhanced security for robust connections.

The Aikri 6490 LGA SoM enables OEMs and engineers to evaluate performance of QCS6490 for their next-gen designs while minimizing design risk factors and reducing design cycle time with early time to market.

eInfochips Advantages

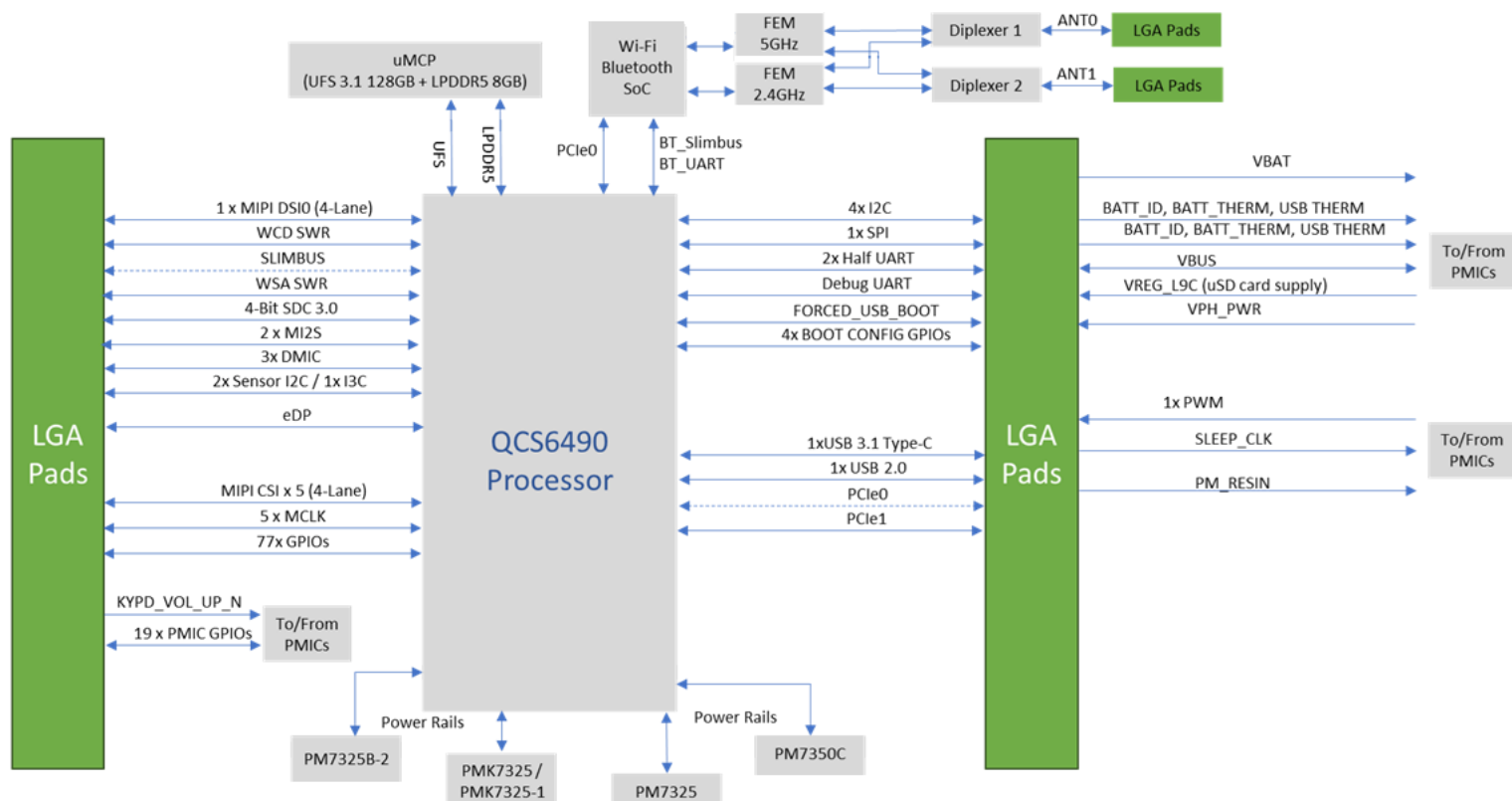
- ✓ **28** Years of experience in system design
- ✓ **10** Design centers worldwide
- ✓ **500+** Product designs
- ✓ **35+** Product designs on Qualcomm
- ✓ **15M+** Product deployments across globe
- ✓ **ISO 9001, ISO13485, AS9100/EN9100, ISO26262** and **CMMi L3** compliant processes



einfochips.com | marketing@einfochips.com

Qualcomm





Aikri QCS6490 LGA SoM

Processors	Qualcomm® QCS6490 <ul style="list-style-type: none"> 64-bit customized Octa-core Kryo™ CPU 670 <ul style="list-style-type: none"> Quad high-performance cores – 1x Gold+ core at 2.7GHz ; 3x Gold+ cores at 2.4GHz Quad low power silver cores at 1.9GHz Adreno™ 643 GPU at 812 MHz with 64-bit addressing and 1075 DPU 6th gen AI Engine: Compute Hexagon DSP with dual Hexagon Vector eXtensions (HVX), Hexagon Co-processor 2.0 and Tensor Accelerator Spectra™ 570L ISP 	
AI Performance (INT 8)	13 TOPS	
Memory	8GB LPDDR5, 128GB UFS3.1 (uMCP)	
Wireless	<ul style="list-style-type: none"> Qualcomm® Wi-Fi via WCN6856 WLAN 802.11ax (WiFi 6E); Bluetooth5.2 	
Display Interfaces	<ul style="list-style-type: none"> 1x MIPI-DSI 4-lane - D-PHY 1.2 at 1.5 Gbps per lane with split link support OR eDP 1.4 (DSI and eDP are mutually exclusive) DisplayPort on USB-C 	
Camera Interface	<ul style="list-style-type: none"> 5x MIPI-CSI 4-lane - D-PHY 1.2 at 2.5 Gbps per lane supported. Triple 14-bit image signal processing (ISP) + two lite ISP 22 + 22 + 22 MP, 64 MP/30 fps 	
Audio Interfaces	<ul style="list-style-type: none"> 1x PDM MIC (from QCS6490) 1x SLIM bus port interface to WCN6856 BT audio 1x Sound-Wire interface (two Tx and two Rx data lines) for WCD9375 codec. 	
I/O Interfaces	<ul style="list-style-type: none"> 1x USB-C 3.1 1x PCIe Gen 3 1-lane (for WCN6856); 1x PCIe Gen 3 2-lane (for NVMe but can be used for other use-cases) GPIOs, SPIs, I2Cs, I3C, UARTs; GPIO connections to sensor core DSP 	
Operating Environment	<ul style="list-style-type: none"> Input voltage: 3.6V 	<ul style="list-style-type: none"> Operating temperature: -30 to +85° C
Mechanical Specification	<ul style="list-style-type: none"> SoM: 44mm x 36.5mm x 3.2mm (542 LGA pins; 1.2mm pitch 0.7mm pad) 	
Software and OS	<ul style="list-style-type: none"> Android 13, Kernel 5.4.226 	<ul style="list-style-type: none"> Qualcomm Linux (QLI)
Orderable Parts	<div>Android</div> <ul style="list-style-type: none"> System On Module (SOM): Aikri-64X-90AS-8-LGA Dev kits: Aikri-64X-90AD-8-LGA – Basic dev kit Aikri-64X-90AD-8-1-LGA – Dev kit with all accessories for video collaboration use-cases <div>Linux</div> <ul style="list-style-type: none"> System On Module (SOM): Aikri-64X-90LS-8-LGA Dev kits: Aikri-64X-90LD-8-LGA – Basic dev kit Aikri-64X-90LD-8-1-LGA – Dev kit with all accessories 	



einfochips



einfochipsindia



einfochips



einfochipsLtd

Qualcomm Adreno and Qualcomm Quick Charge are products of Qualcomm Technologies, Inc. Qualcomm, Snapdragon, Adreno and Quick Charge are trademarks of Qualcomm Incorporated, registered in the United States and other countries. Used with permission. einfochips reserves the right to make changes to the information, text, graphics or other items contained within this material at any time, without any prior notice. einfochips will make their best effort, however cannot commit to keep this material up-to-date. To be assured that you have the latest material, you are encouraged to contact sales@einfochips.com. All brands, logos, product names and service names are trademarks or registered trademarks of their respective companies or organizations



einfochips.com



marketing@einfochips.com

Qualcomm

