

# Aikri QCS610 Development Kit

Based on the Qualcomm® QCS610 SoC



- 1 Enterprise Security Cameras
- 2 IP Cameras
- 3 Dash Cam and Body Cam
- 4 Audio/Video Collaboration
- 5 Home/Industrial Automation
- 6 Tele-diagnostics
- 7 Smart Display, Videoconferencing
- 8 Industrial IoT

## 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.

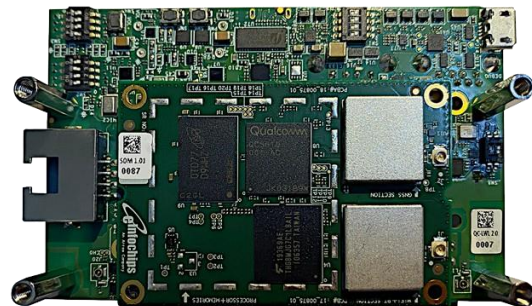
## eInfochips QCS610 Development Kit

The Aikri 610 Development Kit is based on Qualcomm® QCS610 based Aikri System on Module(SoM). This SoM integrates Kryo™ 460 CPU, Adreno™ 612 GPU, Hexagon™ 685 DSP, AI Engine and the Spectra™ 230 camera ISP to enable advanced on-device camera processing and machine learning with very good thermal efficiency. The Aikri 610 SoM coupled with features like Ethernet RGMII, calibrated 802.11nac Wi-Fi signal strength, Haptics, Bluetooth 5.x and location enables OEMs and engineers to create advanced camera designs quickly, while minimizing design risk factors.

The Aikri 610 Development Kit enables OEMs and engineers to evaluate performance of QCS610 for their product designs and reduce 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



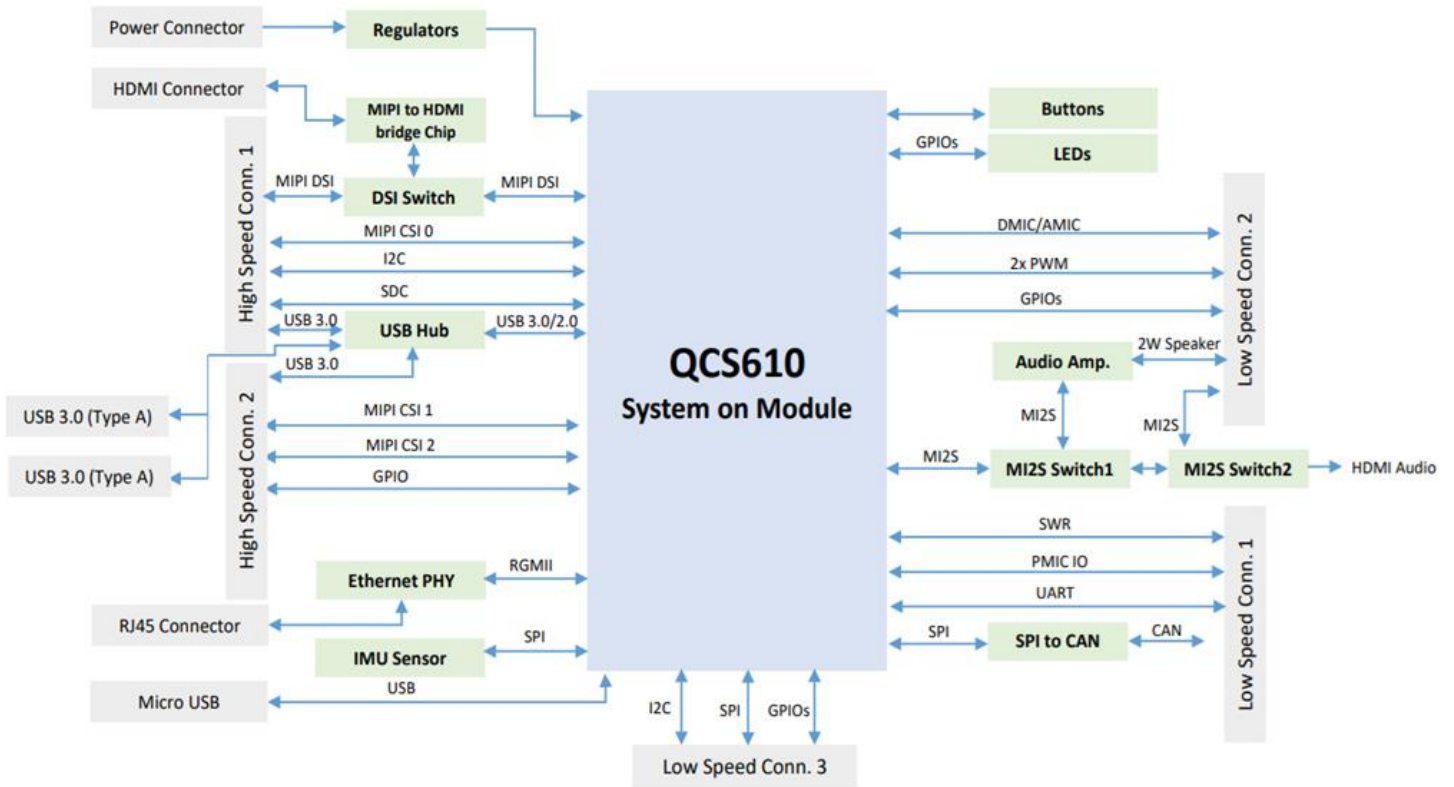
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ENRICHING LIVES  
THROUGH  
ENGINEERING  
EXCELLENCE



## Aikri QCS610 SoM

<b>Processors</b>	8x 64-bit Kryo ARM® V-8 compliant CPU @2.2/1.8GHz each, Adreno™ 612 GPU, Hexagon™ 685 DSP with dual-HVX@1.1GHz
<b>Memory</b>	4GB LPDDR4x, 16GB eMMC
<b>Wireless</b>	<ul style="list-style-type: none"> <li>Qualcomm® Wi-Fi via WCN3980 WLAN 2 × 2 802.11ac; Bluetooth5.0</li> <li>Ethernet RGMII</li> </ul>
<b>AI Performance (INT 8)</b>	<ul style="list-style-type: none"> <li>1.5 TOPS</li> </ul>
<b>Location</b>	GPS, GLONASS, Galileo and Beidou via SDR660

## Aikri QCS610 Dev Kit

<b>Display Interfaces</b>	<ul style="list-style-type: none"> <li>HDMI™ out with audio up to 1080p@60 fps</li> </ul>	<ul style="list-style-type: none"> <li>1x4 lane DSI DPHY 1.2 support</li> </ul>
<b>Camera Interface</b>	<ul style="list-style-type: none"> <li>3x 4-lane CSIs on high-speed expansion connector</li> </ul>	
<b>Sensor Interface</b>	<ul style="list-style-type: none"> <li>1x IMU sensor (SPI based)</li> <li>1x Compass sensor</li> </ul>	<ul style="list-style-type: none"> <li>1x Pressure sensor</li> <li>1x Temperature sensor</li> </ul>
<b>Audio Interfaces</b>	<ul style="list-style-type: none"> <li>7x PDM MICs from WCD9341 codec</li> <li>6x TDM MICs</li> </ul>	<ul style="list-style-type: none"> <li>2x Speaker Output from WCD9341 codec</li> <li>2x Speaker output (I2S amplifiers)</li> <li>HDMI - audio out (I2S)</li> </ul>
<b>I/O Interfaces</b>	<ul style="list-style-type: none"> <li>3x USB 3.1 Type-A ports; 1x USB 2.0 Type-B port</li> <li>1x MicroSD Card</li> <li>1.5x UARTs, 2x I2C, 2x MI2S, 2x SPI, 29x GPIO's (low speed expansion connector)</li> </ul>	<ul style="list-style-type: none"> <li>1x 10/100/1000 Mbps RJ45 Ethernet</li> <li>6x User LEDs</li> <li>Battery connector</li> <li>1x CAN (SPI to CAN)</li> </ul>
<b>Operating Environment</b>	<ul style="list-style-type: none"> <li>Input voltage: 12V</li> </ul>	<ul style="list-style-type: none"> <li>Operating temperature: -20 to +60° C</li> </ul>
<b>Mechanical Specification</b>	<ul style="list-style-type: none"> <li>SoM: 58mm x 39mm with 4x 90-pin board to board connectors</li> </ul>	<ul style="list-style-type: none"> <li>Carrier board and Mezzanine board: 85mm x 54mm, 96board CE specification dimensions with headers</li> </ul>
<b>Software and OS</b>	<ul style="list-style-type: none"> <li>Android; Linux</li> </ul>	
<b>Dev Kit Contents</b>	<ul style="list-style-type: none"> <li>1x Aikri-X10-6S-4 SoM</li> <li>1x Carrier board</li> </ul>	<ul style="list-style-type: none"> <li>1x Mezzanine board</li> <li>12V power adapter; USB cable</li> </ul>
<b>Orderable Parts</b>	<ul style="list-style-type: none"> <li>Development kit: Aikri-X10-6D-4</li> <li>Camera interface card: EIC-DB-CAM-OVS (camera sensors not included)</li> </ul>	