

Aikri QCS405 Development Kit

Based on the Qualcomm® QCS405 SoC



- 1 Smart Speakers
- 2 Smart Soundbars
- 3 Home Cinema
- 4 Smart Speakers with Display
- 5 Smart Assistants
- 6 Home Hubs

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.

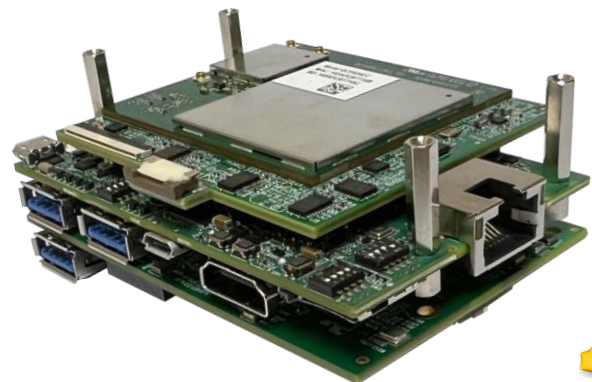
eInfochips Aikri QCS405 Dev Kit

The Aikri 405 development kit is powered by the Qualcomm® QCS405 based Aikri SoM. This SoM integrates a 64-bit Quad-core Arm Cortex-A53-1.4 GHz CPU, Adreno™ 306 GPU, dual Hexagon™ QDSP6 v66, 2x2 802.11ac Wi-Fi and BT5.0 connectivity and supports a mic array, multi-speaker connection via Wi-Fi/BT, PCIe, HDMI 1.4a and multi-room audio streaming. The QCS405 is designed specifically for smart audio applications and supports features such as Multi-mic Noise/Echo Cancellation that isolates noisy environments from voice, simultaneous multi-keyword detection to aid voice services like Amazon Alexa and Google assistant.

The Aikri development kit helps kick-start and optimize your creation of complex, feature-rich smartaudio solutions such as Smart-speakers, Soundbars, Home cinema, Smart assistants, Home Hubs etc. within a short turnaround time.

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



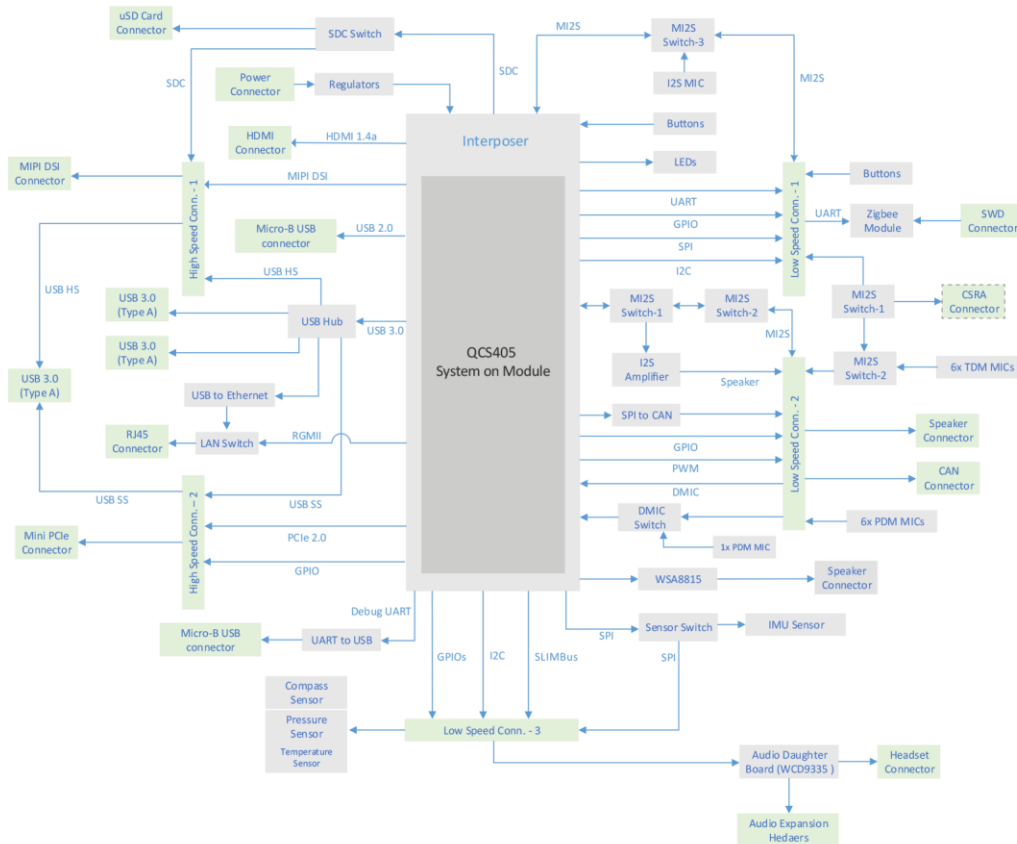
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Aikri QCS405 SoM	
Processors	4x Arm Cortex-A53 @ up to 1.4 GHz, dual DSPs (Audio and Compute with AI engine), Adreno 306 GPU/Display and 920 DPU
Memory	1GB LPDDR3, 8GB eMMC
Connectivity	<ul style="list-style-type: none"> Qualcomm® Wi-Fi via WCN3999 WLAN 1 × 1 802.11ac; Bluetooth5.0 Ethernet RGMII
Aikri QCS405 Dev Kit	
Display Interface	<ul style="list-style-type: none"> 1x HDMI Port - HDMIv1.4a up to 1080p 30fps 1x MIPI-DSI 4 lanes
Sensor Interface	<ul style="list-style-type: none"> 1x IMU sensor (SPI based) Compass sensor (I2C based) Barometric Pressure & Temp. Sensor (I2C based)
Audio Interfaces	<ul style="list-style-type: none"> 1x headset output (3.5mm headset Jack) from WCD9335 1x Earpiece output from WCD9335 codec 2x Lineout from WCD9335 codec 2x I2S Amplifier 5x analog MICs - can be interfaced on WCD9335 codec header. 1x headset MIC - uses AMIC2 of WCD9335 codec. 3x digital MICs - can be interfaced on WCD9335 codec header. 6x Digital MICs available through PDM interfaces
I/O Interfaces	<ul style="list-style-type: none"> 3x USB-C 3.0 Type-A port; 1x USB2.0 Micro-B port 1x MicroSD Card V3.0 - 4-bit (SDC2) GPIOs (low speed expansion connector) High and low speed expansion headers 1x 10/100/1000 Mbps RJ45 Ethernet 1x MicroUSB for Console 6x User LEDs Battery connector 1x CAN (SPI to CAN)
Operating Environment	<ul style="list-style-type: none"> Input voltage: 12V Operating temperature: -20 to +60° C
Mechanical Specification	<ul style="list-style-type: none"> SoM: 55mm x 48mm LGA Interposer Board: 65.42 mm X 63.12 mm with 4x 90-pin board to board connectors Carrier board: 85mm x 54mm, 96board CE specification dimensions with headers Mezzanine board: 85mm x 54mm, 96board CE specification dimensions with headers
Software and OS	<ul style="list-style-type: none"> Linux, Yocto Thud, Kernel 4.14
Dev Kit Contents	<ul style="list-style-type: none"> 1x Aikri-40X-5LS-1 SoM soldered on Interposer card 1x Carrier board 1x Mezzanine board 12V power adapter; USB cable
Orderable Parts	<ul style="list-style-type: none"> Development kit: Aikri-40X-5LD-1