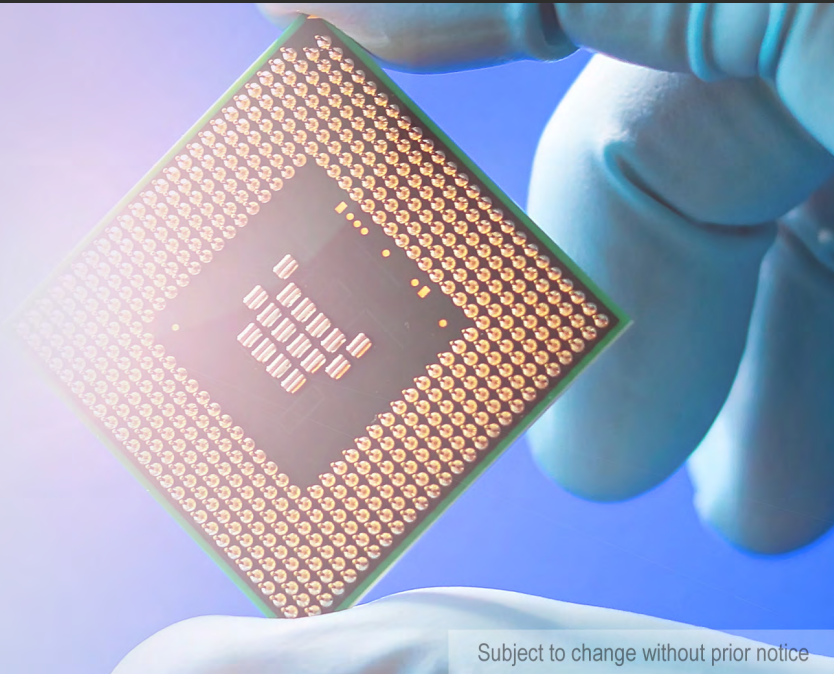# Aikri QCS2290 Development Kit

Based on the Qualcomm® QCS2290 SoC

Subject to change without prior notice

About eInfochips

eInfochips is product engineering services company offering technology consulting and product design services in multiple industry verticals like aerospace & defense, security and surveillance, medical and healthcare, industrial and home Automation, consumer electronics and more.

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 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 Aikri QCS2290 Dev Kit

eInfochips Aikri QCS2290 development kit is based on Qualcomm® QCS2290 System on Chip and delivers greater performance, better graphics, and broader connectivity options.

QCS2290 integrates a 64-bit Quad-Core application processor at 2.0 GHz, Qualcomm® Adreno™ 702 GPU, and Qualcomm® Spectra™ 340L image signal processor. QCS2290 supports Wi-Fi and enhanced Bluetooth 5.0 which offers battery-saving and enhanced security for robust connections.

QCS2290 development kit enables OEMs and engineers to evaluate performance of QCS2290 for their next-gen designs while minimizing design risk factors and reducing design cycle time with early time to market. time with early time to market.
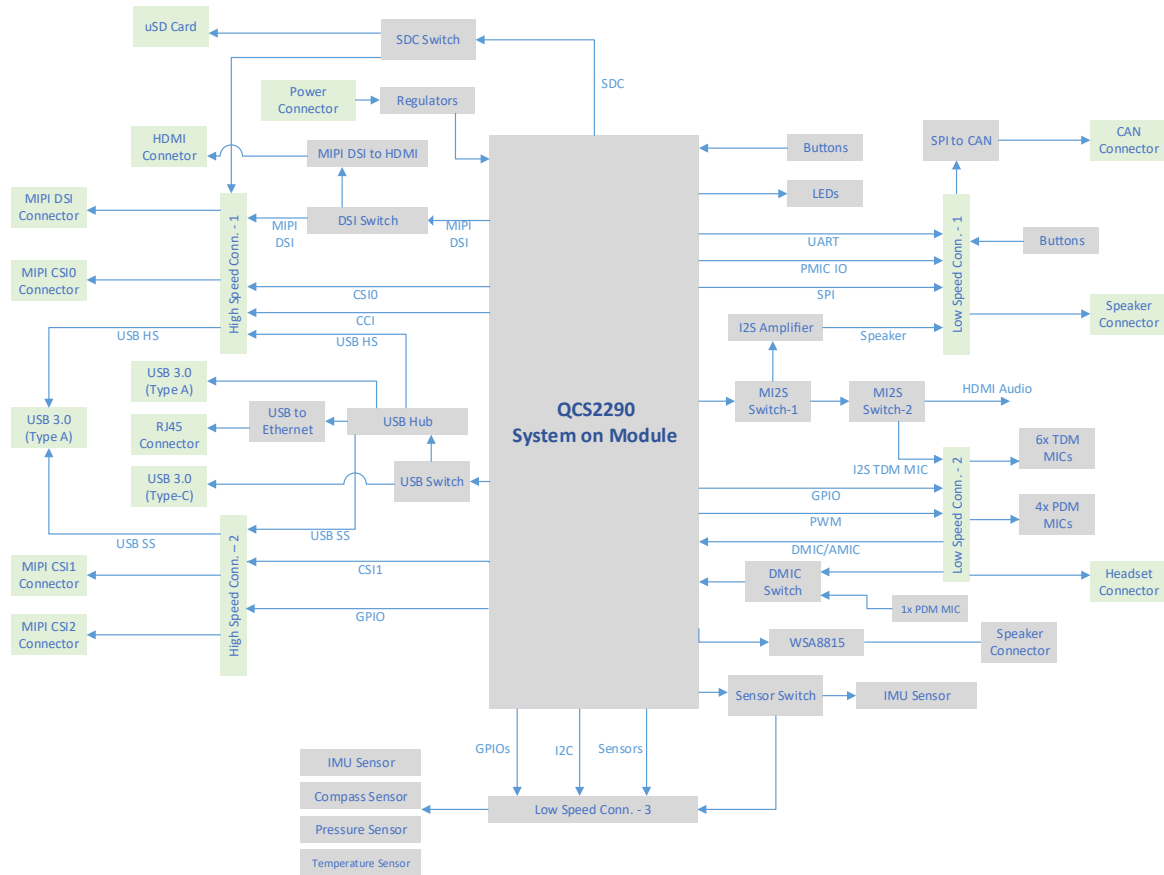
Surveillance Cameras

Robotics

Industrial Handhelds

Telehealth / Medical Devices

Digital Signage / HMI

Security Panels

Block Diagram

uSD Card · SDC Switch · SDC · Power Connector · Regulators · Buttons · LEDs · SPI to CAN · CAN Connector

HDMI Connetor · MIPI DSI to HDMI · UART · PMIC IO · SPI · Buttons

MIPI DSI Connector · High Speed Conn. - 1 · MIPI DSI · DSI Switch · MIPI DSI · I2S Amplifier · Speaker · Low Speed Conn. - 1 · Speaker Connector

MIPI CSI0 Connector · CSI0 · CCI · MI2S Switch-1 · MI2S Switch-2 · HDMI Audio

USB HS · USB HS · I2S TDM MIC · 6x TDM MICs

USB 3.0 (Type A) · USB to Ethernet · USB Hub · QCS2290 System on Module · GPIO · 4x PDM MICs · Low Speed Conn. - 2

USB 3.0 (Type A) · RJ45 Connector · PWM · Headset Connector

USB 3.0 (Type-C) · USB Switch · DMIC/AMIC · DMIC Switch · 1x PDM MIC

USB SS · High Speed Conn. - 2 · USB SS · WSA8815 · Speaker Connector

MIPI CSI1 Connector · CSI1 · Sensor Switch · IMU Sensor

MIPI CSI2 Connector · GPIO

IMU Sensor · GPIOs · I2C · Sensors
Compass Sensor · Low Speed Conn. - 3
Pressure Sensor
Temperature Sensor

Preliminary specification – subject to change

System on Module (SoM)

eInfochips Aikri-22X-90AS based on Qualcomm® QCS2290

CARRIER BOARD

Display Interfaces
- HDMI™ display up to 720p@60
- DSI to HDMI LT9611UXC bridge chip - video and audio

Sensor Interface
- 1x IMU sensor

Audio Interfaces
- 1x PDM DMIC
- Mono speaker amplifier (WSA8815)
- Stereo I2S amplifiers
- HDMI - audio out

I/O Interfaces
- 1x USB 3.1 Type-C
- 1x USB 3.0 Type-A ports
- 1x MicroSD Card
- 1x 10/100/1000 Mbps ethernet port via USB 3.0 to ethernet
- 1x microUSB for console
- 6x user LEDs

Others
- High-speed and low-speed expansion headers (for connecting Mezzanine Board)

MEZZANINE BOARD

Display Interfaces
- 1x MIPI-DSI 4-lane
- 720p@60 LCD with touch - with LCD backlight control

Camera Interface
- 2x 4-lane CSIs (4/4, 4/2/1)
- D-PHY 2.5 Gbps/lane

Audio Interfaces
- 4x PDM MICs
- 6x TDM MICs
- 1x Headset Jack
- 2x I2S Speaker connectors

Sensor Interface
- 1x IMU sensor
- 1x Compass sensor
- 1x Pressure sensor
- 1x Temperature sensor

I/O Interfaces
- 1x USB 3.0 Type-A
- GPIOs (low speed expansion connector)
- Battery connector
- 1x CAN (SPI to CAN)

Operating Environment
- Input voltage: 12V
- Operating temperature: -20 to +60° C

Mechanical Specification
- Carrier board: 85mm x 54mm, 96board CE specification dimensions with headers
- Mezzanine board: 85mm x 54mm, 96board CE specification dimensions with headers

Operating System
- Android 12, Kernel 4.19

Kit Contents
- 1x Aikri-22X-90AS SoM
- 1x Carrier board
- 1x Mezzanine board
- 1x Quick start guide

Orderable Part
- Development kit: Aikri-22X-90AD

eInfochips, an Arrow company, is a leading global provider of product engineering and semiconductor design services. With over 500+ products developed and 40M deployments in 140 countries, eInfochips continues to fuel technological innovations in multiple verticals. The company's service offerings include digital transformation and connected IoT solutions across various cloud platforms, including AWS and Azure.

FOLLOW US · /einfochips · /einfochipsltd · /einfochips · /einfochipsindia