

Eragon 845 Hardware Development Kit



Based on the Qualcomm® Snapdragon 845 Processor (SDA 845)



eragon

845

Snapdragon Official Licensee

eInfochips is an official licensee for the Qualcomm® Snapdragon 845 (SDA845) processor, a product of Qualcomm Technologies, Inc. (QTI), enabling us to have direct support from QTI for product design and development. We also have access to proprietary technology and code

Snapdragon 845 (SDA845)

Qualcomm® Snapdragon 845 (SDA845) processor is based on a 64 bit Octa-core Kryo™ 385 CPU, built on Arm® Cortex™, a 10nm technology, offers immersive multimedia experiences. It comprises of Qualcomm® Adreno™ 630 GPU for rich multimedia functionality along with Quick Charge™ 4+ technology for mobile solutions.

eInfochips Eragon 845 HDK

The ERAGON 845 Hardware Development Kit (HDK), EIC-Q845-210 is based on Snapdragon 845 (SDA845), to help OEMs and device makers in evaluating the processor and peripherals; an ideal starting point for creating high-performance mobile devices, software development and applications.

Key Features

- Quad-core Qualcomm® Kryo™ 395 CPU - 64-bit ARMv8-compliant Processor at upto 2.2 GHz
- Qualcomm® Adreno™ 630 GPU with support for OpenGL ES 3.2, OpenCL 2.0 Full, Vulkan, DX12
- Qualcomm® Spectra™ 280 ISP for premium camera and XR experience
- High-performance capture of up to 16 MP at 60 images per second
- Video encode / decode up to 4K (3840x2160) Ultra HD at 60fps
- High Speed Connectivity Options with Wi-Fi 802.11 a/b/g/n/ac 2x2 MU-MIMO, WiGig 802.11ad optional support

eInfochips Advantages

- **20 years** of experience in system design
- **1700+** professionals for HW, Firmware, Application Software and Mechanical
- **30+ B\$ corporations** as customers
- **10 design centres** in USA and India
- **500+** products across applications
- **200+** designs on Android and Linux
- **ISO 9001 and CMMi L3** compliant processes

Virtual Cinema

3D Gaming

Artificial intelligence

Internet of Things

High-end Camera

Augmented and Virtual Reality

4K Video Solutions



Datasheet Rev 1.0

Connectivity

Wi-Fi:

- Qualcomm® Wi-Fi 802.11a/b/g/n/ac 2.4/5GHz 2x2 MIMO

Bluetooth:

- Bluetooth 5.0

Location:

- GNSS daughter card with GPS, GLONASS, COMPASS, and Galileo
- PCB antenna and SMA connector option

Memory / Storage

- 6GB LPDDR4x PoP Memory, 128 GB UFS 2.1, microSD 3.0 UHS-1

USB

- 2x USB2.0 Type-A host (on-board hub)
- 1x USB 3.1 Type-C with DisplayPort video out

Camera

- 3x 4-lane + 1x 2-lane MIPI-CSI Ports on 120-pin Connector
- Qualcomm® Spectra™ 280 ISPs

Audio

- Qualcomm® audio codec on-board (WCD9340)
- 1x US Standard CTIA Headset Jack, Analog audio input and output expansion headers
- Qualcomm Aqstic™ audio codec and speaker amplifier

Display

- 1x DisplayPort over USB 3.1 Type-C
- 2x 4-lane MIPI-DSI connector for Optional Display Adapter Accessory
- HDMI 1.4 via DSI -> HDMI bridge on board

Video Encode

- 4K (3840x2160) Ultra HD at 60fps
- HEVC video encoding of either HD (720p) video up to 480fps or FHD (1080p) up to 240fps
- Supports H.264, H.265 (HEVC) 10-bit HDR

Video Decode

- 4K(3840x2160) Ultra HD at 60fps
- H.264 (AVC), H.265 (HEVC), VP9

Kit Content

- Processor Card with SDA845
- Mini-ITX Carrier Board
- 12V AC Power Adapter
- Battery
- USB Cable
- Setup Guide

Add-on Accesories

- Display Daughter Card
- Camera Daughter Card

Other

High Speed I/O:

- 1x USB3.1 Type-C with DisplayPort video out
- 1x PCIe interface to either mini PCIe socket or PCIe 1x slot

General I/O:

- 1x USB micro-B UART
- NFC expansion header
- Sensor expansion header, with I2C, SPI, UART, GPIO

Operating System

- Android™ 8 Oreo™

Mechanical specification

- Mini-ITX form-factor-170mm x 170mm

Power specification

- Power supply input: 12V/3A input from wall adapter (included) or 3000mAh Li-Ion battery (included)

Part Number

- EIC-Q845-210

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