INTRINSYC®

EMBEDDED & IoT SOLUTIONS
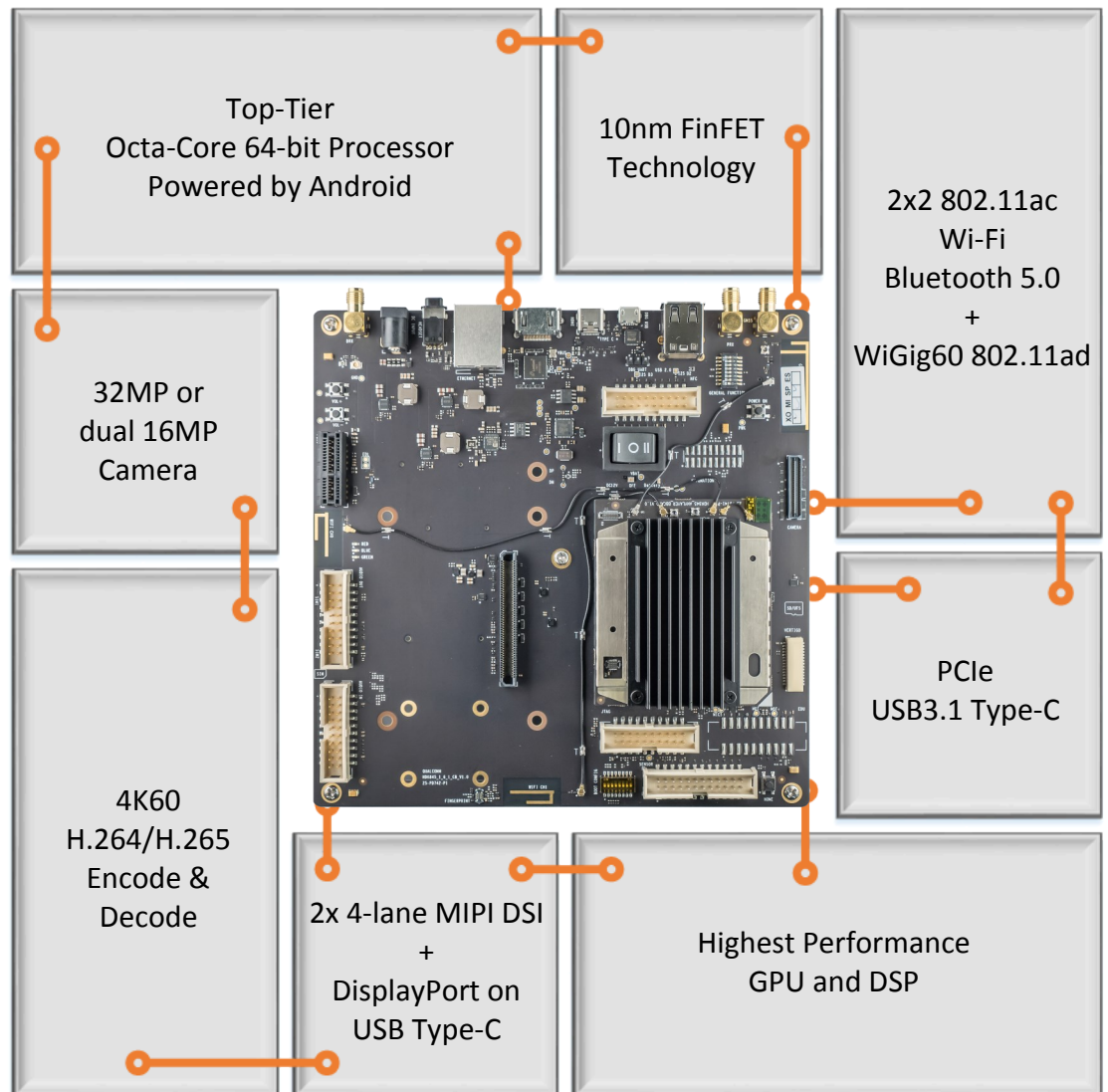

Qualcomm snapdragon

Open-Q™ 845 HDK Development Kit

Based on the Qualcomm® Snapdragon™ 845 processor

START DESIGNING YOUR NEXT GENERATION MOBILE DEVICES TODAY

The Open-Q™ 845 HDK is our highest performance board platform powered by the top-tier Qualcomm® Snapdragon™ SDA845 processor. The HDK supports a QHD LCD panel (optional), HDMI out or DisplayPort over USB Type-C, 4K@60 Ultra HD H.264/H.265 encode and decode, 2x 16MP or 1x 32MP cameras, and many I/O expansion headers. This dev kit is ideally suited for OEMs and device makers to evaluate the processor and peripherals, and to jump-start premium mobile device or software development.
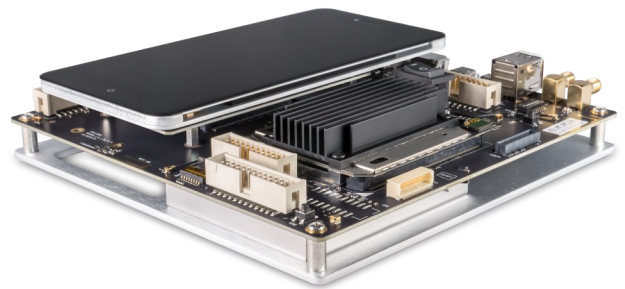
Top-Tier
Octa-Core 64-bit Processor
Powered by Android

10nm FinFET
Technology

2x2 802.11ac
Wi-Fi
Bluetooth 5.0
+
WiGig60 802.11ad

32MP or
dual 16MP
Camera

4K60
H.264/H.265
Encode &
Decode

2x 4-lane MIPI DSI
+
DisplayPort on
USB Type-C

Highest Performance
GPU and DSP

PCIe
USB3.1 Type-C

Technical Specifications

Open-Q™ 845 HDK Development Kit

Processors	**Qualcomm® Snapdragon™ SDA845 Octa-core 64-bit Kryo™ 385 CPU built on 10nm technology** 4X high-performance Kryo cores – up to 2.80 GHz 4X low-power Kryo cores— up to 1.8 GHz Qualcomm® Adreno™ 630 GPU OpenGL ES 3.2, OpenCL 2.0 Full, Vulkan, DX12 Qualcomm® Hexagon™ 685 DSP
Memory/Storage	6GB LPDDR4x RAM, 128GB UFS2.1 Flash
Wireless	Qualcomm® Wi-Fi 802.11a/b/g/n/ac 2.4/5Ghz 2x2 MIMO + Bluetooth 5.0 (WCN3990), with on-board antennas WiGig60 802.11ad with on-board antenna
Video	Video Capture to 4K Ultra HD at 60fps, 10-bit HDR H.264 (AVC), H.265 (HEVC) Video Playback to 4K Ultra HD at 60fps, 10-bit HDR
Power Management	Power and battery management (PM845, PM8005, PMI8998, SMB1381)
Display Interfaces	HDMI 1.4 via DSI -> HDMI bridge on board, DisplayPort over USB3.1 Type-C 2x 4-lane MIPI DSI connector for optional LCD panel accessory
Camera Interfaces	3x 4-lane + 1x 2-lane MIPI CSI ports on one 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
Location	GNSS daughter card with GPS, GLONASS, COMPASS, and Galileo, PCB antenna and SMA connector option
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	2x USB2.0 Type-A host (on-board hub), 1x USB micro-B UART, uSD 3.0 UHS-1 card socket NFC expansion header, sensor expansion header, with I2C, SPI, UART, GPIO
OS Support	Android™ 8 Oreo™
Power Input	12V/3A input from wall adapter (included) or 3000mAh Li-Ion battery (included)
Size	Mini-ITX form-factor — 170mm x 170mm

Optional Accessories

Display Board	5.7" QHD (1440x2560) LCD / PCAP Touch panel via 4 lane MPI DSI Interface
Camera Board	Includes: 2x rear-facing cameras, 1x forward-facing camera

Key Features:

- Qualcomm® Snapdragon™ SDA845 processor
- Top-Tier Performance
- Android™ 8 Oreo™
- Generous I/O and Expansion Connectors

Shown with optional LCD/touch panel