INTRINSYC®
EMBEDDED & IoT SOLUTIONS



Qualcomm snapdragon

Open-Q™ 820 Development Kit

Based on the Qualcomm® Snapdragon™ 820 processor

START DESIGNING YOUR EMBEDDED AND IOT DEVICES TODAY



Intrinsyc's Open-Q™ 820 Development Kit is a versatile, easy-to-use exposed board platform providing the ideal starting point for creating the next generation embedded and IoT devices. The platform features Qualcomm's cutting edge Snapdragon 820 our Open-Q™ 820 SOM, a carrier board exposing all the available IO, and a range of accessories to fast track your product development.

Technical Information

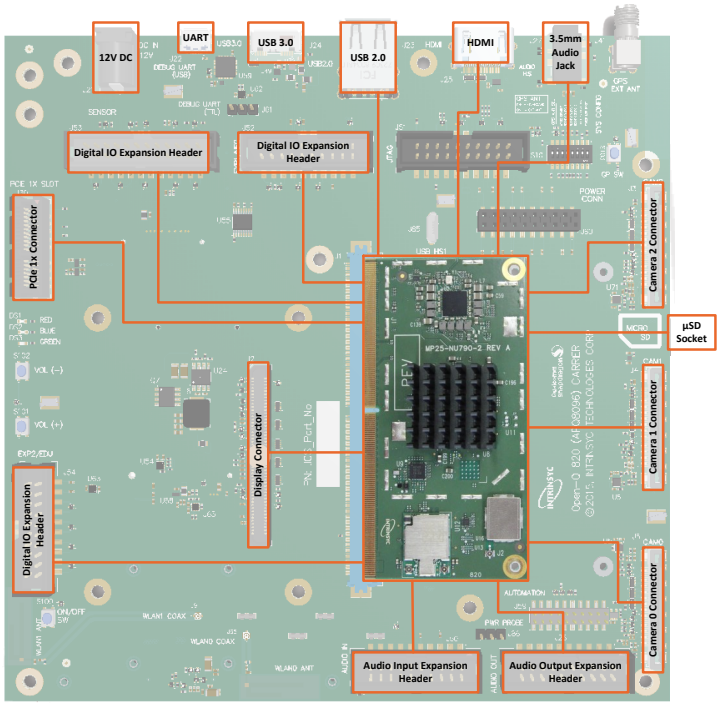
Processor	Snapdragon 820 Qualcomm® Kryo™ CPU, Quad-Core, 64-bit, 2.2GHz Qualcomm® Adreno™ 530 GPU Qualcomm® Hexagon™ 680 DSP Qualcomm® Spectra™ ISP 3GB LPDDR4 RAM (1866MHz) 32GB UFS 2.0 Flash 1-lane, gear 3 Wi-Fi 802.11a/b/g/n/ac 2.4/5.0 GHz 2x2 MU-MIMO Bluetooth 4.2 Qualcomm® IZat™ Gen 8C GPS Qualcomm Hi-Fi Audio Codec (WCD9335)
Display	2x MIPI-DSI 4-lane, 60fps, up to 2560x1600 (single port), 4096x2160 (dual port) 1x HDMI 2.0 up to 4096x2160, 60fps
Camera	3x MIPI-CSI 4-lane, dual ISP, up to 28MP
Audio	Codec (WCD9335) 1x 3.5mm ANC Jack headset 20pin Audio Input expansion header, 3x analog in, 3x digital in 20pin Audio Output expansion header, 5x analog out, 1x digital out
Other Interfaces	1x UART debug (USB micro-B) 1x USB 2.0 client, micro-B or 2x USB 2.0 host, type A 1x USB 3.0 host or client, micro-AB 2x PCIe 1x mini PCIe v1.2, 1x PCIe X1 slot v2.1 1x µSD Socket 8x Digital IO 4-pin port configurable as I2C, SPI, UART or GPIO
OS Support	Android 7 Nougat, Android 8 Oreo™, Android 9 Pie, Linux
Operating Environment	Power input: 12V DC SOM Dimensions: 82mm x 42mm Carrier Board Dimensions: 170mm x 170mm

DESIGN : DEVELOP : BUILD

Implement Hi-Fi quality surround sound with 3D positional audio, multi-codec support including 24bit/192kHz FLAC playback. Record multi-channel audio with voice activation and active noise cancellation offered by Fluence™.

Realize DSLR quality image capture with the new Spectra ISP offering advanced noise reduction, low light performance and fast focus methods such as PDAF and contrast AF. With dedicated HVX (Hexagon Vector Extensions) running on the Hexagon 680 DSP provide powerful image processing and computer vision solutions.

Use the latest Gen 8C GPS technology. Track, tag and embed additional information with real time device location data.



CPU DSP GPU

Deliver a superior, immersive user experience with the new custom 64-bit Kryo CPU. The tightly integrated heterogeneous architecture including the Hexagon 680 DSP and Adreno 530 GPU offer more intelligent solutions with the highest peak performance, and greatest power efficiency enabling all day performance.

Design and develop smart connected devices with integrated wireless connectivity. Support for the fastest 802.11ac 2x2 MU-MIMO Wi-Fi offering the quickest data transfers and streaming speeds as well as Bluetooth 4.2 for low energy peripheral connectivity.

Record, stream and playback high quality multi-media video with H.265 (HEVC) encode and decode. Deliver eye catching visuals with both wired and wireless displays up to 4K UHD at 60fps.

I/O

Offering seamless connectivity to external memory, sensors, and a host of other peripheral devices via the comprehensive list of configurable IO. The Open-Q™ 820 development kit helps fast tracks your product development.

Optional Accessories

13MP Camera Module

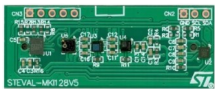


4.5” FWVGA Touch LCD





ST Micro MEMS sensor module



Datasheet: Open-Q 820 Dev Kit r1.5

Specifications are subject to change without notice. Not all features listed may be supported in software. All brand or product names are trademarks or registered trademarks of their respective owners. Qualcomm Snapdragon, Qualcomm Kryo, Qualcomm Spectra, Qualcomm Adreno, Fluence and Qualcomm Hexagon are products of Qualcomm Technologies, Inc. Qualcomm IZat is a product of Qualcomm Atheros, Inc. Qualcomm, Snapdragon, Adreno, Fluence and Hexagon are trademarks of Qualcomm Incorporated, registered in the United States and other countries. Kryo, Spectra and IZat are trademarks of Qualcomm Incorporated. Used with permission.

Intrinsyc Technologies Corp. : 885 Dunsmuir Street : 3rd Floor : Vancouver : Canada : V6C 1N5 : +1 (604) 801-6461 : sales@intrinsyc.com