

# Qualcomm® Snapdragon™ 835 Mobile Hardware Development Kit

**Comprehensive and expandable development and evaluation kit for the Snapdragon 835 Mobile Platform.**

The Snapdragon 835 Mobile Hardware Development Kit provides an open-frame solution for technology companies to integrate and innovate devices based on the Snapdragon 835 Mobile Platform.

The Snapdragon 835 Mobile Hardware Development Kit is a feature-rich Android development platform that is designed to provide an ideal starting point for creating high-performance mobile devices and applications based on the Snapdragon 835 Mobile Platform. The kit includes the hardware, software tools and accessories needed to immediately begin your mobile development work.

With an advanced 10-nanometer design, the Snapdragon 835 Mobile Platform can support phenomenal mobile performance. It is 35% smaller and uses 25% less power than its predecessor and is engineered to support exceptionally long battery life, lifelike VR and AR experiences, cutting-edge camera capabilities and Gigabit Class download speeds.

The Snapdragon 835 mobile development platform is designed to provide original equipment manufacturers (OEMs), hardware/software vendors, developers and engineers with next generation software technology and tools to accelerate development and testing of devices.

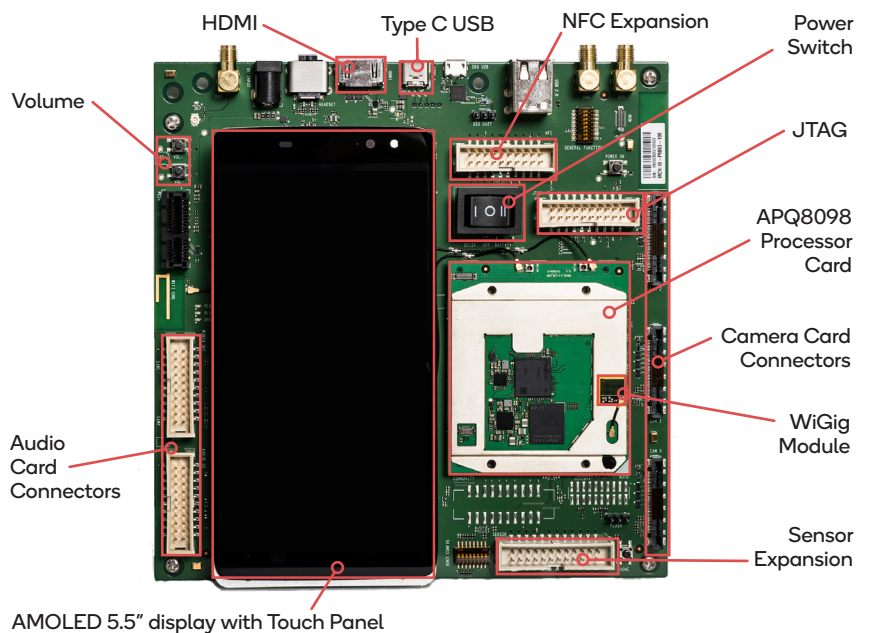
## Solution Highlights

### Kit Contents

- Processor Card with APQ8098
- Mini-ITX carrier board
- GNSS card
- 12V AC power adapter
- Battery (optional)
- Charger
- USB cable
- Setup guide

*Display Adapter Card is an additional accessory*

### Development Platform

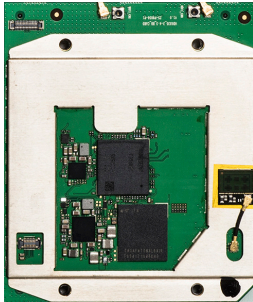




## Snapdragon 835 Mobile Platform Applications

- Mobile PC's
- Apps Development
- IP Cameras
- Hexagon DSP
- Smart Phones/Tablets
- Machine Learning

## Snapdragon 835 Processor Card



The Snapdragon 835 Processor Card measuring 60mm x 70mm is where all the processing occurs. It is connected to the carrier via two 240-pin high speed board-to-board connectors. A top side heat sink and a bottom side heat conductive metal plate provide thermal protection.

The Processor Card provides the basic common set of features with minimal integration effort. It integrates the following:

- Snapdragon 835 (APQ8098) main application processor
- LPDDR4X up to 1866MHz 4GB RAM (POP)
- PMi8998 + PM8998 – PMIC for Peripheral LDOs, Boost Regulators
- WCN3990 Wi-Fi+ BT+ FM combo chip over SLIMbus, Analog IQ, UART, PCM
- 128 GB UFS 2.1
- WCD9341 Audio Code

## Specifications

Dimensions	170mm x 170mm Mini-ITX
CPU	Quad-core Qualcomm® Kryo™ 280 CPU 64-bit ARMv8-compliant processor at up to 2.2GHz
GPU	Qualcomm® Adreno™ 540 GPU OpenGL ES 3.2, OpenCL 2.0 Full, Vulkan, DX12
DSP	Qualcomm® Hexagon™ 682 DSP
Memory and Storage	4GB LPDDR4X PoP memory 128GB UFS 2.1
Connectivity	Wi-Fi: 802.11a/b/g/n/ac 2.4/5GHz Bluetooth 5.0 + HS (backward compatible) GNSS (GPS/GLONASS/COMPASS/GALILEO)
Camera Support	3x MIPI CSI with support for 3D camera configuration
Display	2x MIPI dual 4-lane DSI + touch panel
Multimedia	HDMI 2.0 output - supports up to 4K UHD (3840 x 2400 at 60fps) and HDMI 2.0a (4K60)/ 4K30 Miracast
I/O Interfaces	1x PCIe, 1x JTAG, HDMI 2.0, 1x USB 3.1 Type C, 1x USB 2.0 micro-B, 3x MIPI-CSI, 2x MIPI dual 4-lane DSI 4x Expansion headers for additional features (NFC, sensors etc.)
LED	3x General purpose LED, PMIC driven
Battery	4.35V/3000mAh
Operating System	Android 7
Optional Accessories	Display: 5.5" AMOLED LED (1440 x 2560) with PCAP Touch Panel Cameras: 8M FF, Single 12M 2PD, Dual 12M+13M OZ+OIS

To learn more visit:  
[developer.qualcomm.com](http://developer.qualcomm.com)

**Qualcomm**  
snapdragon

WCN3990, WCD9341, PMi8998, PM8998, Qualcomm Hexagon, Qualcomm Adreno and Qualcomm Kryo are products of Qualcomm Technologies, Inc. and/or its subsidiaries.

©2018 Qualcomm Technologies, Inc. All Rights Reserved. Qualcomm, Snapdragon, Hexagon, Kryo and Adreno are trademarks of Qualcomm Incorporated, registered in the United States and other countries. Other products and brand names may be trademarks or registered trademarks of their respective owners. 0318A