





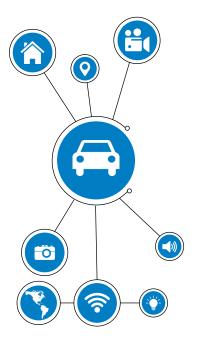
Snapdragon™ S820Am v2 Automotive Development Platform

Based on the Snapdragon™ 820A Automotive Processor

EXPERIENCE THE NEXT GENERATION AUTOMOTIVE INFOTAINMENT AND ADVANCED DRIVER ASSIST TECHNOLOGY TODAY!

The second-generation Snapdragon™ Automotive Development Platform (ADP) based on the Qualcomm® Snapdragon™ 820A processor from Qualcomm® Technologies, Inc. (QTI) provides OEMs and ecosystem partners with access to QTI's high-performance automotive infotainment, modem and advanced driver assist platform for developing, testing, optimizing and showcasing next-generation in-vehicle infotainment solutions.

The 820A Snapdragon processor includes four Kryo™ CPUs, a Qualcomm® Adreno™ 530 GPU and high-performance Hexagon™ 680 DSP. The ADP features rich connectivity through the X12 LTE modem, and 802.11a/b/g/n/ac, Bluetooth 4.1 and GNSS (GPS, Glonass, BDS, Galileo). The ADP supports multiple camera sensors and 4K display outputs. The ADP provides an optimized application development environment for rapid deployment of high performance and power efficient connected automotive infotainment offerings.



Technical Information

Snapdragon Processor	Snapdragon 820Am
& Memory	Qualcomm custom 64-bit Kryo™ quad core CPU
	Qualcomm Adreno™ 530 GPU
	Qualcomm® Hexagon™ 680 DSP
	4GB LPDDR4 DRAM & 64GB eMMC 5.1 Flash
LTE Modem (optional)	X12 LTE supporting LTE FDD, TDD, WCDMA, TD-SCDMA, CDMA 1x/EVDO and GSM/EDGE
Display	10.1" HDMI Capacitive Multi-Touch Screen Monitor supplied with unit 4K resolution 60fps multiple touchscreen displays supported over HDMI 2.0
Multimedia	10-bit 4K decode w/ up to 4 concurrent 1080p60 decodes 4K HEVC video at 60fps with 10-bit color 4Kp60 decode w/ concurrent 4Kp30 encode Hi-Fi 24-bit/192kHz FLAC playback
Connectivity & Location	Qualcomm® QCA6574 Wi-Fi / Bluetooth 4.1 combo chip (802.11a/b/g/n/ac 2.4 / 5.0 GHz supporting 2-stream 11ac Wi-Fi plus BT 4.1) Integrated GNSS module (GPS, Glonass, BDS, Galileo) Ethernet AVB and CAN support
Camera	Up to 8 simultaneous camera sensor inputs available
OS Support	Android 6 Marshmallow, Automotive Grade Linux
Power Supply	12V DC



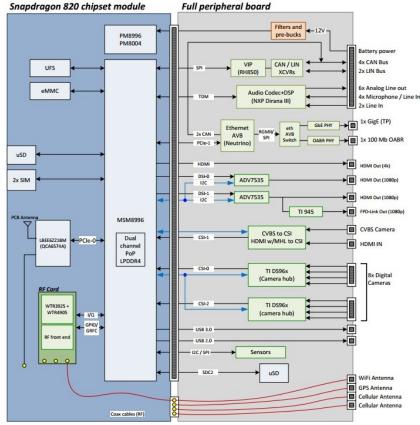


DESIGN: DEVELOP: BUILD

The Kryo CPU,
Adreno GPU in combination

with Open GL ES 3.1+AEP, OpenCL2.0 Full, Vulcan, Renderscript, 64-bit virtual addressing DirectX 11.2, plus hardware tessellation, geometry shaders, programmable blending; and, the DSP with Hexagon Vector eXtensions all bring together a compute intensive solution that can tackle every sensor usage scenario found in today's vehicles

Onboard GNSS RF receiver supports real time device location data using multi-satellite frequency bands (GPS, Glonass, BDS, Galileo)



The multi-sensor system provides cognitive awareness for driver assistance using the Zeroth machine learning platform and HVX-computer vision engine, location navigation using integrated GNSS and dead reckoning

The ADP offers integrated wireless connectivity using Qualcomm's QCA6574 Wi-Fi / Bluetooth 4.1 combo chip for quick AVD transfer and streaming.

Enjoy continuous secure Wi-Ficonnectivity using the most advanced 4G LTE technology via the optional X12 LTE modem.

Capture 4K HEVC videos at 60fps 10-bit color with image enhancement and processing capabilities and up to four concurrent 1080p60 decodes and concurrent 4Kp30 encode

A dedicated **Hexagon DSP** provides powerful

image processing and enhanced computer vision solutions. Support for up to 8 simultaneous camera sensor inputs and high resolution 4K displays

In the box

- S820Am v2 processor board
- Peripheral board
- Lilliput 10" multi-touch LCD display
- Power supply
- HDMI cable
- Product guide

Peripheral Module: Antenna connectors, Ethernet, Display, Audio



Snapdragon Infotainment, LTE Module, WiFi/BT, GNSS NOTE: Some features may not be supported in the current version of software

Datasheet: Snapdragon S820A ADP Datasheet r7.6

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