

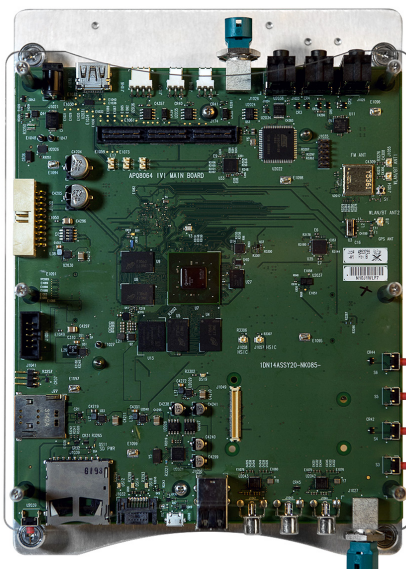
QUALCOMM® SNAPDRAGON™ AUTOMOTIVE DEVELOPMENT PLATFORM

The Qualcomm® Snapdragon™ Automotive Development Platform is designed to allow automakers, Tier-1 suppliers and developers to rapidly innovate, test and deploy next-generation connected infotainment applications and experiences.

INTEGRATED PLATFORM FOR INTEGRATED SOLUTIONS

The Snapdragon Automotive Development Platform offers the multiple integrated capabilities of the optimized Qualcomm Technologies production-grade solutions in an integrated single-board platform. With production quality, optimized software supporting BSPs, OSs, stacks and frameworks, infotainment system integrators can significantly reduce their software development time and risk and begin final production software qualification earlier.

- + Fully integrated and tested suite of Qualcomm Technologies and third party components
- + Available with support for Android and QNX operating systems, including comprehensive software suite up to the application layer
- + Complies with automotive requirements for fast boot of critical services, power and system optimized graphics, audio and video frameworks as well as simultaneous dual mode (STA, AP) support for 802.11ac Wi-Fi and automotive Bluetooth host profiles such as A2DP-SNK, AVRCP, HFP-HS, PBAP-PCE and MAP-MCE
- + Integrated support for vehicle telematics such as emergency assistance, safety and security, remote monitoring and diagnostics, and energy management



FEATURES

Qualcomm Snapdragon 602A Automotive-Grade Processor

- + 1.5GHz Quad-Core Krait™ CPU, Adreno™ 320 GPU for superior graphics, and embedded Hexagon™ QDSP6 DSP for efficient multimedia processing
- + Advanced Audio playback, Audio effects, Echo Cancellation/Noise Suppression, HD voice, Multi-format audio decoding, Video functions, 2D to 3D auto-conversion, Augmented reality processing
- + Multi-media Open Framework support for Graphics, Audio, Video, Camera including OpenGL, OpenCL, OpenMAX, V4L2, ALSA
- + The Snapdragon 602A has been specifically designed to meet stringent automotive industry standards including AEC-Q100 grade 3 and TS16949

Qualcomm® Gobi™ 9x15 Multimode 3G/4G LTE

- + Gobi 9x15 modem provides a 3G/4G + integrated GNSS solution for virtually ubiquitous multimode connectivity to cloud-based services, audio/video streaming and web browsing
- + Mature and proven 3G/4G LTE modem designed for wider bandwidth to support up to LTE CAT 3 (100 Mbps downlink) ideally suited for feature-rich connected infotainment system programs
- + Qualcomm Technologies' 2nd generation Category 3 LTE/3G modem capable of up to 100Mbps DL 50 Mbps UL
- + Supports FDD/TDD LTE, TD-SCDMA, 3G DC-HSPA+/HSPA, 3G CDMA EV-DO/B/rA, 3G CDMA 1x EDGE/GPRS/GSM
- + Integrated Cortex ARM A5 @ 550 MHz running Linux OS and QNX
- + Support for eCall, application processing for telematics services suite

Qualcomm VIVE™ Wi-Fi® and Bluetooth

- + Dual-band 802.11ac for high performance Wi-Fi® communication including Simultaneous Station, Access Point, and Point-to-Point operation
- + Supports Miracast™ wireless display, MirrorLink™ 1.2 wireless control, and Bluetooth Low Energy Profile 4.0 for seamless integration of vehicle/device applications and control
- + High-performance 2x2 MIMO design reduces signal loss, while shared antennas and advanced coexistence mitigate Wi-Fi/Bluetooth/LTE interference; support for 802.11p for DSRC and V2V safety applications

HARDWARE SPECIFICATIONS

Chipset

- + S602A 23x23, PMM8920, QCA6574, RGR7640

Memory/Storage

- + 4GB(3GB accessible)/2GB DDR3L-1066
- + 64 GB eMMC
- + 64MB SPI NOR Flash
- + One SD card slot

Three Display Outputs

- + LVDS to FPDLINK III
- + HDMI
- + DSI to HDMI
- + Touch screen on FDPLINK III display
- + Additional touch screen on USB interface

Wireless Connectivity

- + WLAN: 802.11ac, 2.5GHz/5GHz,
- + BT 4.0,
- + GPS

Camera Inputs

- + FPD-LINK II Input
- + CVBS video input

Audio

- + NXP Dirana3 car audio and radio system
- + 6-ch audio output (speaker x4, line out x2)
- + 4 microphone input
- + MDM modem audio support
- + Early sound play with analog audio from the network processor

Sensors

- + Accelerometer, Compass

WWAN

- + MDM9x15 LTE module

Wired Connectivity

- + Atmel SAM4E/SAMV71 Network processor
- + Ethernet AVB support (limited function with SAM4E)
- + CAN interface x2, LIN interface x1

Hard Keys

- + Four SW definable buttons
- + Power and reset buttons

Main Board Connectors

- + 12V DC jack
- + USB2.0: One micro OTG, three host type-A;
- + One SD card slot
- + One SIM card slot
- + One SATA connector
- + JTAG, USB to UART debug connector
- + Display: FPDLINK III x1, HDMI x2 (1080p x1, 720p x1)
- + Camera: FPDLINK II x1, CVBS in x 3 (2 concurrent)
- + Antenna: 2 WAN, 2 WLAN/BT, 1 GPS
- + RCM connector

Radio Board Connectors

- + Speaker amp DC power input
- + Speaker output x4, Line output x2
- + Microphone input x4
- + Aux audio input jack
- + Radio antenna connectors
- + JTAG

Network Board Connectors

- + Ethernet socket x1
- + CAN connector x2, LIN connector x1
- + 12V permanent power connector
- + JTAG

To learn more visit qualcomm.com/solutions/automotive

