

# Open-Q™ 624A SOM (System on Module)

Based on the Qualcomm® Snapdragon™ 624 processor

Intrinsyc's Open-Q™ 624A SOM is a feature-rich, production ready module based on the Snapdragon™ 624 processor from Qualcomm® Technologies, Inc. The SOM's small form factor, high-end Wi-Fi/BT and extensive peripheral I/O make it ideal for devices that require cloud connectivity and edge compute capabilities. Its multimedia, HD video camera, and touch display capabilities, along with extensive audio features, make it a perfect solution for creating next-gen home hub products requiring tasks such as video conferencing, remote video monitoring, movie and video streaming.

## Key Features

- Octa-Core 64-bit ARM Cortex A53 1.8GHz
- Pre-certified high performance Wi-Fi/BT module
- Qualcomm Hi-Fi audio codec for multi-mic solutions
- Hi-Def video playback and LCD support
- Android™ 8 Oreo™

## Applications

- Audio/video home hubs
- Smart home control center
- Video conferencing products
- Streaming video/audio devices
- Smart connected cameras



## Hardware Specifications

<b>Processor</b>	Qualcomm® Snapdragon™ 624 (APQ8053) built on 14nm technology Octa-Core 64-bit ARM Cortex A53 1.8GHz Qualcomm® Adreno™ 506 GPU OpenGL ES 3.1, OpenCL 2.0 Full, DirectX 12, GPU Tessellation, Geometry Shading Qualcomm® Hexagon™ 546 DSP
<b>Memory/Storage</b>	2GB LPDDR3 RAM, 4GB eMMC Flash (larger flash memory sizes available by special order)
<b>Wireless</b>	Pre-certified Wi-Fi/BT module - 802.11a/b/g/n/ac, 2x2 MU-MIMO, 2.4/5Ghz, Bluetooth 4.2 + BLE (QCA9379-3) 3x MHF4 antenna connectors - 2 for Wi-Fi, 1 separate for BT
<b>Location Services</b>	GPS, GLONASS, Compass (WGR7640) w/ U.FL antenna connector
<b>LCD/Touchscreen Interface</b>	1x 4-lane MIPI DSI display interface Supports LCD up to 1080P Full HD 60fps
<b>Camera Interface</b>	Up to 21MP with 2x 4-lane MIPI CSI camera interfaces and dual ISPs
<b>Video</b>	Video Capture up to 1080p at 90fps, Video Playback up to 1080p at 90fps, H.264 (AVC) and H.265 (HEVC)
<b>Audio Interfaces</b>	I2S interface for external audio devices 2x digital mic inputs directly to processor
<b>Audio Codec</b>	Qualcomm® Hi-Fi audio codec on SOM (WCD9335) with 1x headset interface 4x analog microphone inputs 1x stereo line outputs 4x digital mic inputs
<b>Power/Battery Management</b>	Qualcomm power management and battery charging solution (PM8953/PM18952)
<b>I/O</b>	1x USB3.0 Type-C, multiple BLS ports (GPIO, UART, SPI, I2C buses), debug UART
<b>Operating Environment</b>	Power input: 3.6V to 4.2V Operating Temperature: 0°C to +50°C
<b>Form Factor</b>	Carrier board connection: 3x 100 pin board-to-board connectors Size: 50mm x 46.5mm with four mounting holes for secure mounting and effective thermal solutions

## Software

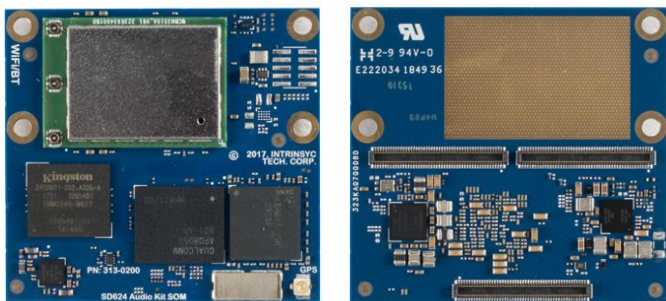
<b>OS Support</b>	Android™ 8 Oreo™ *Note that all hardware features may not be supported by all SW — see latest SW release notes for details
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## Purchasing Information

**Open-Q 624A SOM**      Part number: QC-DB-M10004  
[Store Link](#)

Alternate SOM configurations available by special order (minimum order quantities apply) - e.g. no GPS, different memory size, etc.  
 Contact sales to discuss your specific needs today:

[sales@intrinsyc.com](mailto:sales@intrinsyc.com)



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