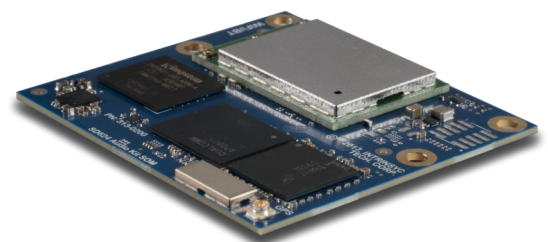# Open-Q™ 624A Development Kit

Based on the Qualcomm® Snapdragon™ 624 processor

Intrinsyc's Open-Q™ 624A Development Kit is a cost-effective, feature rich, exposed board platform powered by our Open-Q™ 624A SOM (System on Module), based on the Snapdragon™ 624 processor from Qualcomm® Technologies, Inc. The dev kit is ideal for evaluation of the Open-Q™ 624A SOM as well as jump-starting development of AI-enabled home hub products requiring tasks such as video conferencing, remote video monitoring, movie and video streaming. It supports audio with the included microphone board and stereo speaker amp board, as well as video with the option camera accessory and LCD/touch panel accessory.

Dev Kit Features

- 2x Wi-Fi + 1x BT Antennas for diversity on carrier board
- 8x Digital Mics on carrier board
- Stereo speaker amps on carrier board
- 2x MIPI CSI camera connectors
- Generous I/O expansion headers
- Android™ 8 Oreo™

Open-Q™ 624A SOM

Hardware Specifications

Open-Q™ 624A SOM

*See the Open-Q 624A SOM datasheet for complete details

Processor	Qualcomm® Snapdragon™ 624 (APQ8053) built on 14nm technology Octa-Core 64-bit ARM® Cortex™ A53 1.8GHz, Qualcomm® Adreno™ 506 GPU, Qualcomm® Hexagon™ DSP
Memory/Storage	2GB LPDDR3 RAM, 32GB eMMC Flash
Audio	Qualcomm® Hi-Fi audio codec on SOM (WCD9335)
Wireless	Pre-certified Wi-Fi/BT module - 802.11a/b/g/n/ac, 2x2 MU-MIMO, 2.4/5Ghz, Bluetooth 4.2 + BLE (QCA9379-3)
Location Services	GPS, GLONASS, Compass (WGR7640) w/ antenna connector

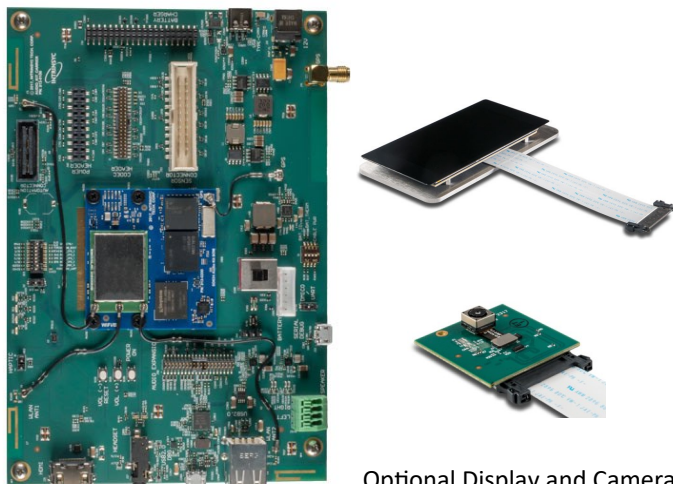### Open-Q™ 624A Carrier Board

Display	1x 4-lane MIPI DSI connector for optional LCD/touchscreen, LCD up to 1080p Full HD 60fps
Camera	2x 4-lane MIPI CSI camera connectors
Video	Video Capture up to 1080p at 90fps, Video Playback up to 1080p at 90fps, H.264 (AVC) and H.265 (HEVC)
Audio	Qualcomm® stereo speaker amps (WSA8815) Analog and digital audio expansion headers: Stereo speaker terminals 4x analog mic inputs + 8x digital mic inputs 1x 3.5mm headset interface 1x stereo line output 8x digital microphones on carrier board I2S/SLIMBUS interface for external audio devices
I/O	1x USB3.0 Type C, Debug UART USB interface, Sensor expansion header, GPIO expansion header (GPIO, UART, SPI, I2C buses), Haptics output
Wireless Antennas	2x Wi-Fi PCB antennas (2x2 MIMO) + separate Bluetooth PCB antenna for isolation GNSS receiver front-end LNA/BPF + PCB antenna
Operating Environment	Power input: 12V/3A from included power adapter SOM size: 50mm x 46.5mm Carrier Board size: 170mm x 115mm

Software

OS Support	Android™ 8 Oreo™ *Note that all hardware features may not be supported by SW — see latest SW release notes for details

Purchasing Information

Open-Q 624A Dev Kit	Part number: QC-DB-M10023A Store Link
Open-Q 624A SOM	Part number: QC-DB-M10032 Store Link
Open-Q 2100 LCD	Part number: QC-DB-J00005 Store Link
Open-Q OV5693 Camera	Part number: QC-DB-M10006 Store Link

Optional Display and Camera

Intrinsyc Product Design Services

Intrinsyc also offers comprehensive product development including hardware, software, mechanical engineering, as well as specialty services such as camera, audio, DSP, and RF development.
Contact Intrinsyc to discuss your product design needs today:
sales@intrinsyc.com

Development Kit includes: Carrier board, SOM (with 32GB eMMC), 12V power supply, Quick Start Guide, access to full documentation, SW updates, and basic development kit support.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Intrinsyc](#):
  [QC-DB-M10023A](#)