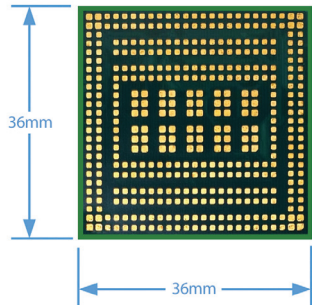


Open-Q™ 4290 SIP

Based on Qualcomm® QCS4290 System-On-Chip



Open-Q™ 4290CS

The Open-Q™ 4290 SIP is a cost-effective solution that delivers powerful performance, vivid graphics, dynamic camera capabilities, and a broad range of connectivity options.

Designed for advanced AI vision applications, the QCS4290 chipset utilizes Qualcomm Technologies' heterogenous compute expertise to provide an SoC with multiple specialized processing cores.

This is a Wi-Fi 5 solution with some Wi-Fi 6 features: TWT & 8SS. With security, advanced camera features, and high-speed interfaces, the Open-Q 4200 SIP creates the perfect computing core for a variety of edge AI video analytic applications.

Along with the companion development kit, OS and SDKs, and available accessories, it will accelerate your time to market for innovative new products requiring advanced imaging and computer vision performance in low-cost and low-power embedded situations.

Key Features

- Compact SIP with Qualcomm QCS4290 SoC, 8-core 2.0/1.8 GHz processor
- 3rd generation Qualcomm AI Engine
- Vivid graphics with Qualcomm Adreno 610 GPU
- Multiple high speed connectivity options
- Up to 6GB LPDDR4 and 256GB eMMC
- Long term support with extended life hardware and software support through 2027

Applications/Markets

- Intelligent surveillance camera, dash camera, body camera
- Fleet management with video analytics
- Warehouse and logistic robots
- Rugged handheld computer
- Interactive display boards
- Drone

Engineering Services:

We provide a full solution – our unparalleled engineering expertise and product development skills deliver innovative products that are cost-effective and can jumpstart your go-to-market timeline.

Our business model offers turnkey product development services, or we can augment your team in specific areas of development. The choice is yours.

Key development expertise in:

- Camera development and tuning
- Voice control
- Machine learning
- Mechanical & RF design
- Thermal & power optimization

IoT product development made easy.



Hardware Specifications:

| | |
|------------------------------|---|
| Processors | 8-core 2.0/1.8 GHz processor + 1GHz cDSP |
| Memory/Storage | 2GB – 6GB LPDDR4 16GB – 256GB eMMC SD 3.0 |
| Wireless | 802.11 a/b/g/n/ac, Wi-Fi 6-ready 8x8 sounding & Target Wake Time (TWT), 1x1 MU-MIMO 2.4/5 GHz, WPA3, Bluetooth 5.1, and FM RDS/RBDS |
| Camera Interfaces | Three 4-lane CSIs (4/4/4 or 4/4/2/1) |
| Video Performance | Encode & Decode: Up to 1080p 60fps encode / 1080p 60fps decode Decode: Up to 1080p60 8-bit H.264, 1080p60 8-bit HEVC (H.265), VP9 Encode: Up to 1080p60 8-bit HEVC (H.265), 1080p60 8-bit H.264 |
| Video Interface | One 4-lane MIPI DSI Display interfaces, supporting D-PHY 1.2 (1.5 Gbps / lane) |
| Audio | 4x DMIC interfaces, 3x analog mic inputs, headphone, line-out, and speaker outputs |
| Power/Battery | Battery charging solution to be designed on customer board |
| I/O | 4-bit SD 3.0, USB 3.1 Type-C, UART, I2C, I3C, SPI, configurable GPIOs |
| GNSS | Single-frequency, multi-constellation GNSS functionality with external WGR7640 RF receiver |
| Operating Environment | -20 to +85°C |
| Form Factor | 36mm x 36mm x 2.76mm LGA package |
| Certification | FCC, RED |

Software:

| | |
|--------------------------|----------------------------|
| Open-Q 4290CS SIP | Android™ 12, Android 12 Go |
|--------------------------|----------------------------|

Development Kits



The Open-Q SIP family is compatible with Open-Q AL2 development kit.

Purchasing Information:

| SKU | Description | Software |
|------------------------|--|---------------|
| QC-SIP-4290CS-A | Open-Q 4290CS SIP, 2GB LPDDR4, 16G eMMC, Wi-Fi, BT | Android 12 Go |
| QC-SIP-4290CS-B | Open-Q 4290CS SIP, 4GB LPDDR4, 64GB eMMC, Wi-Fi, BT | Android 12 |
| QC-SIP-4290CS-C | Open-Q 4290CS SIP, 4GB LPDDR4, 256GB eMMC, Wi-Fi, BT | Android 12 |

Alternate SIP configurations available by special order (minimum order quantities apply) - For example, different memory size, etc. Contact sales to discuss your specific needs today.

Certifications



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