LANTRONIX®

Enabling Edge Intelligence

Compute Overview

April 2026

LTRX: NASDAQ

V1.1

Lantronix: Leading Connected Compute, Globally

- Publicly Traded on Nasdaq: LTRX
- Proven expertise in AI/ML, imaging, security, and connectivity
- Trusted by leaders in defense, industrial, and enterprise markets
- Global engineering presence with U.S. program management

01

Network Infrastructure

- PoE Switches
- Media Convertors
- Network Cards
- Optics

02

Industrial IoT

- Percepxion Cloud IoT
- Gateways
- Routers
- Telematics

03

Embedded Compute

- Embedded SOMs
- Development Kits
- Design Services
- AI Solutions

Lantronix Global Presence

- HQ in Irvine, US
- Global Manufacturing

- TAA/NDAA Compliance
- Logistics in MN and HK

Trusted US-Based Qualcomm Partner

From idea to launch — We remove the barriers to building with Qualcomm

Embedded Modules

Design Services

Custom Solutions

Dev Kits

Qualcomm Dragonwing

Qualcomm Advantage Network Member
Qualcomm Authorized Design Center

2000+ Projects Delivered | 200+ Engineers | 20+ Qualcomm Modules | 2+ Decades Experience

Scalable Edge AI with Lantronix + MediaTek

Cost-effective embedded compute for high-volume intelligent devices

Value

- Strong Price to Performance
- Value-optimized platform
- Scalable Performance per Dollar
- Pin-to-pin compatible designs for futureproof

Technology

- Engineered for Nvidia TAO
- Native Ethernet and Expanded IO
- Industrial rated design

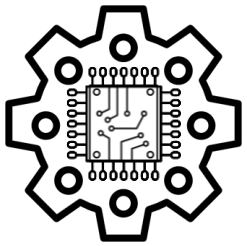
Partnership

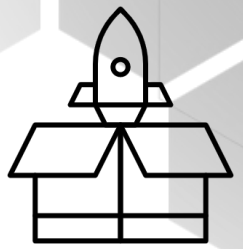
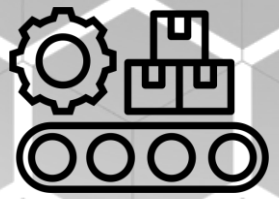
- Combined silicon and embedded system expertise
- Close alignment on roadmap and market needs
- Greater confidence for customers scaling to production

MediaTek Partner
MediaTek Authorized Design Center

Product Development

End-to-End Solutions & Services

Concept

- ✓Technology partners
- ✓Research & design
- ✓PoC & use case trials

Design

- ✓ Comprehensive design capabilities
- ✓ Best practices, principles & approach

Develop

- ✓ Performance optimisation
- ✓ Multi-system integration
- ✓ Project management

Qualify

- ✓ Design validation, & certification
- ✓ Manufacturing line & supply chain setup
- ✓ DFM & DFT optimisation

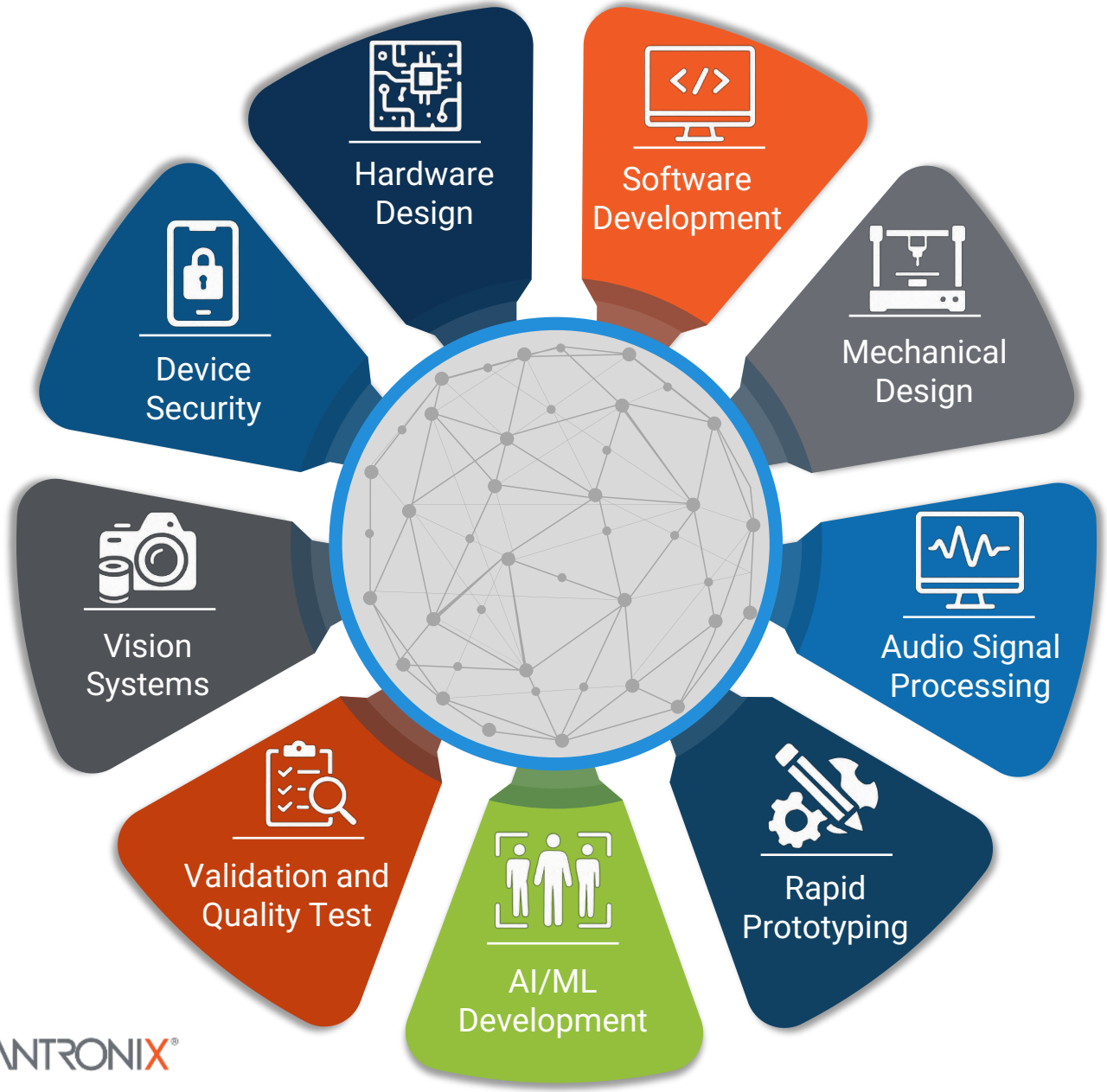
Launch

- ✓ New product introduction
- ✓ Pilot production

Production

- ✓ Supply chain management
- ✓ Technical support
- ✓ Maintenance & warranty

Engineering Design Services



Design, Build, and Deliver Custom Edge Platforms

Engagement Models That Fit You

- Turnkey builds
- Expert support
- Joint design model (JDM)

Enable Camera Expertise

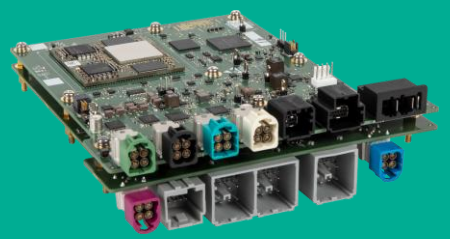
- De-risk complex camera designs
- Sensor fusion frameworks
- Customizable software ISP

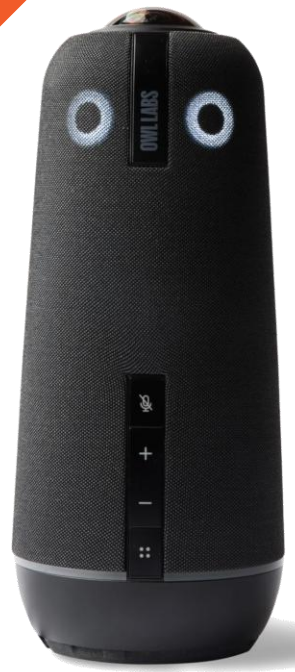
Client Solutions – From Idea to Execution

- SOM + Carrier Boards
- Custom compute & AI-ready designs
- Faster time-to-market

Comprehensive Solutions

Application SW	Customer SW Integration & Deployment REST APIs
LTRX Middleware	OTA update Containerization & micro-services Infinishield™ security
LTRX BSP	Reference BSP Linux Android

Compute Modules	Custom Solutions	Turnkey Device
		

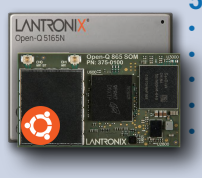


Enabled by LANTRONIX®

Product Roadmap

Compute Product Portfolio

Premium



5165 SOM
- Compute: 15 TOPs
- Camera: 64MP
- Video: 4K120/8K60
- Wi-Fi 6 BLE 5.1
- Power: ~2.9 Watts

8250CS SOM
- Compute: 15 TOPs
- Camera: 64MP
- Video: 4K120/8K60
- Wi-Fi 6 BLE 5.1
- Power: ~2.9 Watts

8550CS SOM
- Compute: 48 TOPs
- Camera: 108MP
- Video:4K120/8K60
- Connect: Wi-Fi 7 BLE 5.3
- Power: <8 Watts

8750CS SOM*
- Compute: 77 TOPs
- Camera: 64MP*
- Video: 8K60D/ 8K60E
- Power: ~12 Watts*

9075IQ SOM
- Compute: 100 TOPs
- Camera: 16x Support
- Video: 4K120/8K60
- Power: <20 Watts

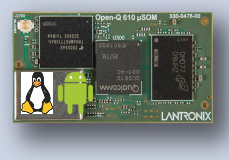
High

7230CS SOM
- Compute: 7 TOPs
- Camera: 64MP
- Video: 4K120/8K60
- Wi-Fi 6 BLE 5.1

6490CS SOM
- Compute: 12 TOPs
- Camera: 64MP
- Video: 4K60D/ 4K30E
- Power: ~4.7 Watts

7790CS SOM*
- Compute: 24 TOPs
- Camera: 64MP
- Video: 4K60D/ 4K60E
- Power: ~4.9 Watts*

Mid



610 µSOM
- Compute: ~1 TOPs
- Camera: 24MP
- Video: 4K30
- Wi-Fi 5 BLE 5.0
- Power: ~2.1 Watts

720G/520G SOM*
- Compute :10 TOPs
- Camera: up to 16+16MP
- Video: 4K30
- Wi-Fi 6/6E BLE 5.x
- Power: TBD

4200 Series SOM
- Compute : ~1 TOPs
- Camera: 25MP
- Video: 1080P 60fps
- Wi-Fi 5 BLE 5.1
- Power: ~1.7 Watts

615IQ SMARC
- Compute: 1.1 TOPs
- Camera: 6x Support
- Video: 4K60D/ 1080P60E
- Wi-Fi 6 BLE 5.3
- Power: ~3.1 Watts

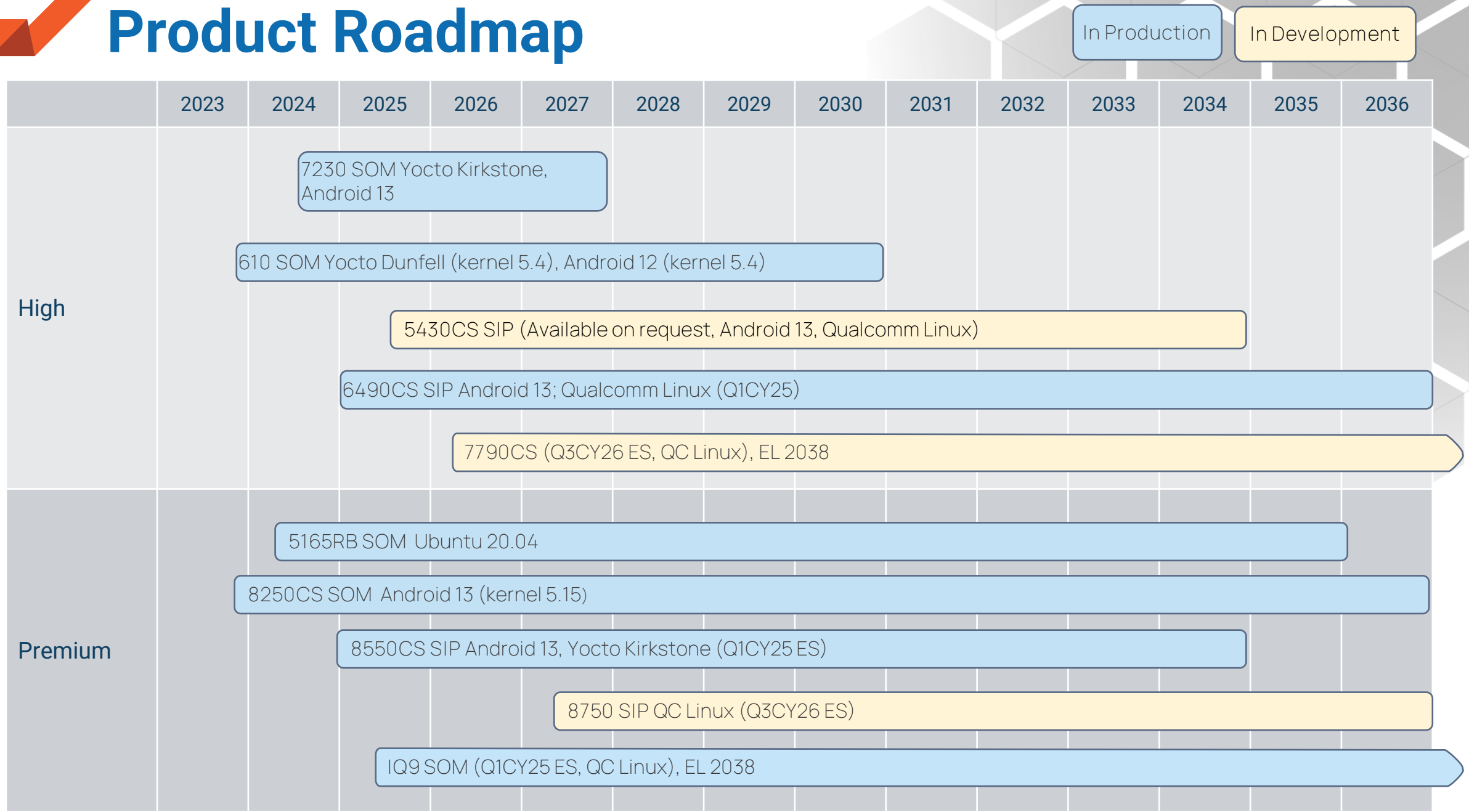
Entry

2200 Series SOM
- Compute: GFLOPs
- Camera: 25MP
- Video: 1080P 30fps
- Wi-Fi 5 BLE 5.0
- Power: ~1.3 Watts

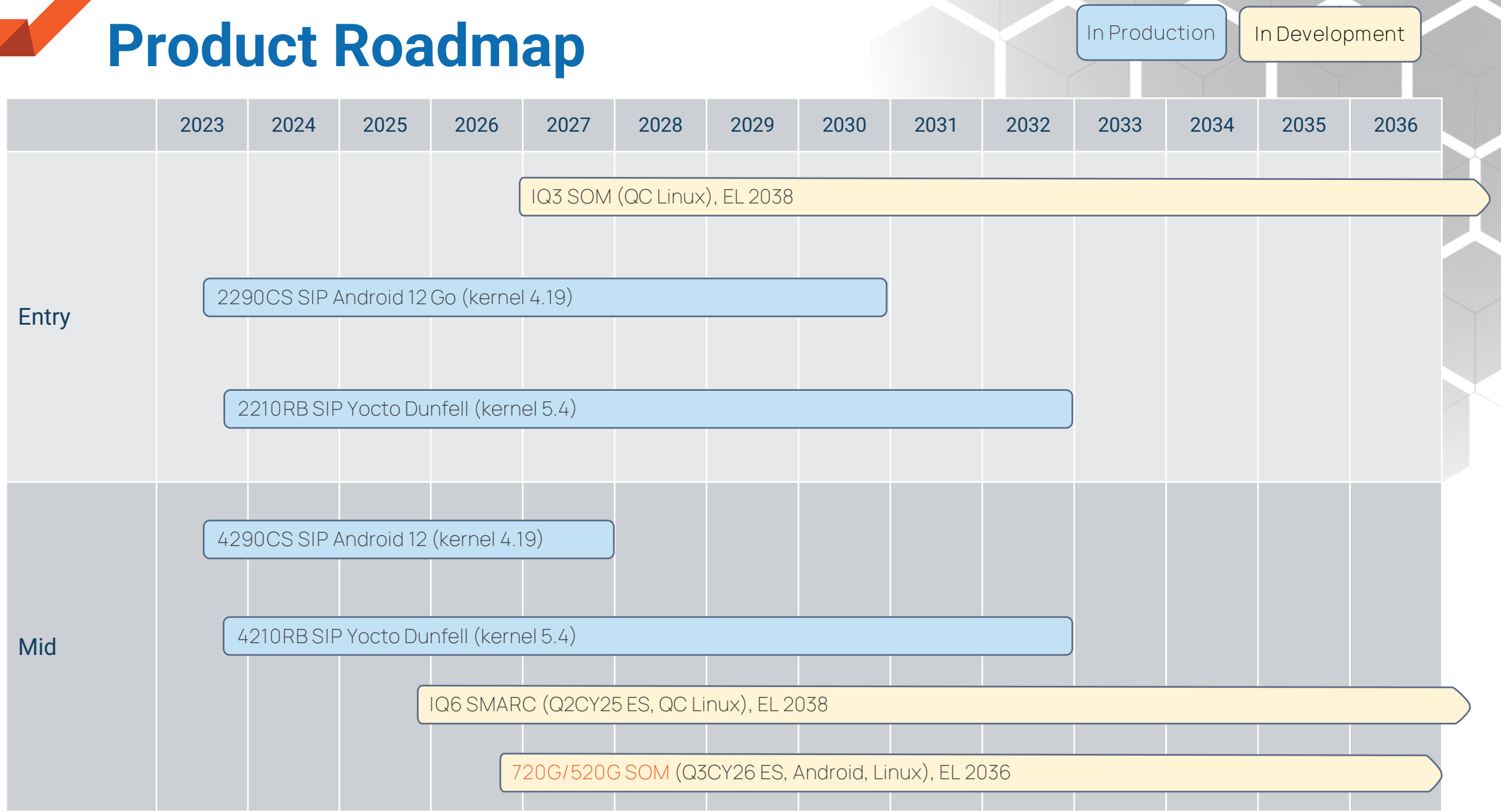
3000IQ Series SOM*
- Compute: 0.5 TOPs
- Camera: 8MP
- Video: 1080P 30fps
- Power: TBD*

*** In Development Subject to Change**

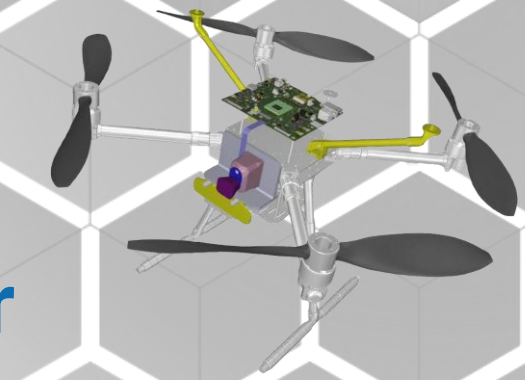
Product Roadmap



Product Roadmap

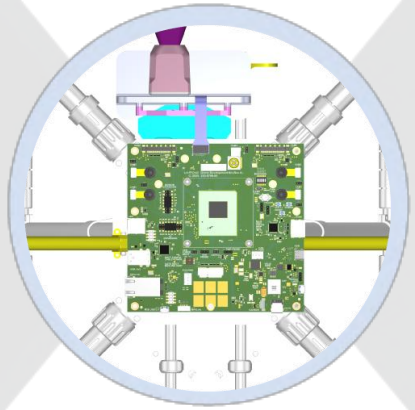


Lantronix Drone Reference Platform



In the Lab

- Lab AI Works
- Thermals & power misaligned
- Telemetry/flight control gets fragile
- Compliance Delays



In the Air

- Edge AI Compute (8550/6490/IQ9/Beyond)
- RGB+ Thermal Pipelines (Flir-ready)
- Clean Flight-controller Coexistence
- High-speed Payload & Comms IO
- Supply Chain Security Foundation

Result
Delayed Time-to-Flight
High Integration Risk

Result
Turnkey, Blueprint to Production
Accelerated time-to-Flight

FLIR + Pixhawk Integration

Enabling Seamless Integration into AI-powered Thermal Camera Technology

- **Teledyne/Flir application of next-gen AI-enabled solutions in autonomous navigation/drones, surveillance & robotics**
- **Powered by our Open-Q™ SoMs based on Qualcomm Dragonwing platform**
- **Provides the flexibility to develop advanced thermal image processing (ISP) and AI capabilities to edge devices**

Premium Level Features and Comparison

	Premium level		
Item	**Open-Q 5165RB/8250CS**	**Open-Q 8550CS SOM**	**Open-Q 9100IQ SOM**
Chipset	QRB5165/QCS8250	QCS8550	IQ-9075
Process	7nm	4nm	4nm
Form-factor	50 mm x 29 mm (B2B)	54 mm x 45mm (LGA)	65mm x 65mm (LGA)
Part Number	QC-DB-U10004/QRB5165-SOM-AT/QC-SOM-8250CS-x	QC-SOM-8550W-x	QC-SOM-9075IQ-x
Memory	6GB + 64GB 8GB + 128GB	8 GB + 128 GB 16 GB + 128 GB	18 GB Memory 36 GB Memory
OS	Android 13 / Ubuntu	Android 13 / 15 / Qualcomm Linux / Ubuntu*	Qualcomm Linux / Ubuntu
CPU	Kryo 585: 1x Prime @ 2.84 GHz, 3x Gold @ 2.42 GHz, 4x Silver @ 1.81 GHz	1 x Kryo Gold prime @ 3.2 GHz + 4 x Kryo Gold @ 2.8 GHz + 3x Kryo Silver @ 2.0 GHz	Octa-core Kryo Gen 6: 1x Prime @ 3.36 GHz, 3x Gold @ 2.8 GHz, 2x Silver @ 2.0 GHz
GPU	Adreno 650 @ 587 MHz	Adreno 740 @ 680MHz	Adreno 663
NPU	NPU230, up to 15 TOPS	Dual eNPU V3, 48 INT8, 12 FP16 TOPs	Dual HTP, 100 TOPS
Display	2x MIPI DSI (up to 5040×2160 @ 60fps), 1x DisplayPort v1.4 via USB Type-C	2 x 4-lane MIPI DSI (3480 x 2160 at 120 Hz, 3360 x 1600 at 144 Hz) + 2 x DP (MST Mode), 4K60	2x MIPI DSI (up to 20 Gbps total), 4x eDP/DisplayPort v1.4 (up to 32.4 Gbps per port), supporting up to 5x 4K displays
Camera	3x 4-lane MIPI CSI camera ports Spectra 480 ISP supporting multiple concurrent cameras 64 MP 30 fps ZSL with a dual ISP	8 x 4-lane MIPI CSI, up to 14x/20x cameras, 5x concurrent 3 x ISP + 2 x Lite ISP	Up to 16 concurrent cameras via 4x MIPI CSI interfaces
Video	Encoding: 4K120/ 8K30, H.264, H.265, VP8, VP9 Decoding: 4K240/ 8K60, H.264, H.265, VP8	Encoding: 4K120/ 8K30, H.265, H.264 Decoding: 4K240/ 8K60, H.265, H.264, VP9	Decoding: UHD275 AV1, HEVC, H.264, H.265, VP9 Encoding: UHD170. HEVC, H.264, and H.265
Bluetooth	Bluetooth 5.1/ BLE	Bluetooth 5.3 (BR/ EDR + BLE)	N/A
Wi-Fi	Wi-Fi 6 – 802.11ax 2x2 MU-MIMO	Wi-Fi 7, 802.11a/ b/ g/ n/ ac/ ax/ be, 2x2 MU-MIMO, Tri-band	N/A
USB	1x USB 3.1 Type-C with DisplayPort v1.4 1x USB 3.1 Type-A	1x USB 3.1 (DP over type-C)	2x USB 3.1 Gen 2 (HS + SS, support device and host modes) 1x USB 2.0 (HS, support device and host modes)
PCIe	1x 2-lane PCIe Gen3	2x PCIe Gen3 2-lane	1x PCIe Gen4 2-lane, 1x PCIe Gen4 4-lane
Lifetime	2036+	2033+	2038
Power	~2.9 Watts		
Benchmark	624,221	1,215,314	TBD**

Common Features and Comparison

	Premium level			
Item	**Open-Q 6490CS SOM**	**Open-Q 7790CQ SOM**	**Open-Q 8550CS SOM**	**Open-Q 9075IQ SOM**
Chipset	QCS6490	QCQ7790	QCS8550	IQ-9075
Process	6 nm	4 nm	4nm	4nm
Form-factor	47mm x 35mm x 2.72 mm (LGA)	43mm x 43mm x 2.72 mm (TBD)	54 mm x 45mm (LGA) or 33mm x 39mm (uSOM)	65mm x 65mm (LGA)
Part Number	QC-SOM-6490CS-C	QC-SOM7790CS-A	QC-SOM-8550W-x	QC-SOM-9075IQ-x
Memory	8 GB + 128 GB 16 GB + 128 GB	8 GB + 128 GB 16 GB + 128 GB	8 GB + 128 GB 16 GB + 128 GB	18 GB Memory + External Flash 36 GB Memory + External Flash
OS	Android 13 and Qualcomm Linux	Android 15* and Qualcomm Linux	Android 13 / 15 / Qualcomm Linux / Ubuntu*	Qualcomm Linux / Ubuntu
CPU	1 x Kryo Gold Plus @ 2.7 GHz + 3 x Kryo Gold @ 2.4 GHz + 4 x Kryo Silver @ 1.9 GHz	1 x Kryo Gold Plus @ 2.8 GHz + 3 x Kryo Gold @ 2.4 GHz + 4 x Kryo Silver @ 1.9 GHz	1 x Kryo Gold prime @ 3.2 GHz + 4 x Kryo Gold @ 2.8 GHz + 3x Kryo Silver @ 2.0 GHz	Octa-core Kryo Gen 6: 1x Prime @ 3.36 GHz, 3x Gold @ 2.8 GHz, 2x Silver @ 2.0 GHz
GPU	Adreno 643 @ 812 MHz	Adreno x*	Adreno 740 @ 680MHz	Adreno 663
NPU	Dual eNPU230 12 TOPs	24 TOPs	Dual eNPU V3, 48 INT8, 12 FP16 TOPs	Dual HTP, 100 TOPS
Display	MIPI: 1200 x 2520 @ 144 fps & DP: 4K (3840 x 2160) @ 60 fps	MIPI: 1200 x 2520 @ 144 fps & DP: 4K (3840 x 2160) @ 60 fps	2 x 4-lane MIPI DSI (3480 x 2160 at 120 Hz, 3360 x 1600 at 144 Hz) + 2 x DP (MST Mode), 4K60	2x MIPI DSI (up to 20 Gbps total), 4x eDP/DisplayPort v1.4 (up to 32.4 Gbps per port), supporting up to 5x 4K displays
Camera	5 x 4-lane MIPI CSI, Supports up to 2.5 Gbps/ lane; 3 × ISP, 3 × 27 MP @ 24 fps; or 3 × 22MP @ 30 fps ; or 36 MP + 27 MP @ 24 fps; or 36MP + 22MP @ 30 fps; or Max. 1 × 64 MP @ 30 fps	5x 4-lane MIPI CSI D-PHY 1.2 or C-PHY 2.0 Spectra ISP supporting 3x concurrent camera	8 x 4-lane MIPI CSI, up to 14x/20x cameras, 5x concurrent 3 x ISP + 2 x Lite ISP	Up to 16 concurrent cameras via 4x MIPI CSI interfaces
Video	Encoding: 4K30 (H.264/ H.265) Decoding: 4K60 (H.264/ H.265/ VP9)	Encoding: 4K60 (H.264/ H.265) Decoding: 4K120 (H.264/ H.265/ VP9/AV1)	Encoding: 4K120/ 8K30, H.265, H.264 Decoding: 4K240/ 8K60, H.265, H.264, VP9	Decoding: UHD275 AV1, HEVC, H.264, H.265, VP9 Encoding: UHD170. HEVC, H.264, and H.265
Bluetooth	Bluetooth 5.2	Bluetooth 5.2*	Bluetooth 5.3 (BR/ EDR + BLE)	N/A
Wi-Fi	Wi-Fi 6E 2.4 & 5 & 6 GHz, 2 × 2 MU-MIMO (External)	Wi-Fi 7 2.4 & 5 & 6 GHz, 2 × 2 MU-MIMO (External)*	Wi-Fi 7, 802.11a/ b/ g/ n/ ac/ ax/ be, 2x2 MU-MIMO, Tri-band	N/A
USB	1 x USB 3.1 (DP over Type-C) + 1 x USB 2.0	1 x USB 3.1 (DP over Type-C) + 1 x USB 2.0*	1x USB 3.1 (DP over type-C)	2x USB 3.1 Gen 2 (HS + SS, support device and host modes) 1x USB 2.0 (HS, support device and host modes)
PCIe	1 x 2-lane PCIe Gen 3	1 x 2-lane PCIe Gen 3*	2x PCIe Gen3 2-lane	1x PCIe Gen4 2-lane, 1x PCIe Gen4 4-lane
Lifetime	2036+	2036+	2033+	2038
Power	~5-6 Watts	~8-10 Watts (estimate)	~10-12 Watts	~20 Watts

High Level Features and Comparison

	High Level			
Module	**Open-Q 610 µSOM**	**Open-Q 7230CS SOM**	**Open-Q 6490CS SOM**	**Open-Q 8275IQ SOM**
Chipset	QCS610	QCS7230	QCS6490	IQ-8275
Process	11nm	7 nm	6 nm	5 nm
Form-factor	50 mm × 25 mm (SOM)	50 mm × 29 mm (SOM)	47mm x 35mm x 2.72 mm (SOM)	TBD (SOM)
SKUs	QC-DB-V10004	QC-SOM-7230CS-A	QC-SOM-6490CS-C	TBD*
Memory	2 – 4 GB Memory + 16 -64 GB Flash	6 – 8 GB Memory + 64 –128 GB Flash	2 – 4 GB Memory + 16 -32 GB Flash	TBD*
OS	Android 12 and Yocto Linux	Android 13/ Ubuntu	Android 13 and Qualcomm Linux	Qualcomm Linux
CPU	Kryo 460: 2x Gold @ 2.2 GHz, 6x Silver @ 1.8 GHz	Kryo 585: 1x Prime @ 2.84 GHz, 3x Gold @ 2.42 GHz, 4x Silver @ 1.81 GHz	1 x Kryo Gold Plus @ 2.7 GHz + 3 x Kryo Gold @ 2.4 GHz + 4 x Kryo Silver @ 1.9 GHz	Kryo Gen 6: 2x Gold Prime @ 2.35 GHz, 2x Gold @ 2.1 GHz, 4x Silver @ 1.95 GHz
GPU	Adreno 612	Adreno 650 @ 587 MHz	Adreno 643 @ 812 MHz	Adreno 623
NPU	~ 1 TOP	NPU230, 7 TOPS	Dual eNPU230 12 TOPs	Hexagon Tensor Processor with 40 TOPs
Display	1x 4-lane MIPI DSI D-PHY 1.2, up to 1920 x 1080p at 60 fps DisplayPort v1.4	2x 4-lane MIPI DSI, supporting D-PHY 1.2 (2.5 Gbps /lane) and 4K60	MIPI: 1200 x 2520 @ 144 fps & DP: 4K (3840 x 2160) @ 60 fps	5 displays; interfaces include 1x DSI (4-lane), 1x DP1.4 (MST4)
Camera	3x 4-lane MIPI CSI	3x 4-lane MIPI CSI	5 x 4-lane MIPI CSI, Supports up to 2.5 Gbps/ lane; 3 × ISP, 3 × 27 MP @ 24 fps; or 3 × 22MP @ 30 fps ; or 36 MP + 27 MP @ 24 fps; or 36MP + 22MP @ 30 fps; or Max. 1 × 64 MP @ 30 fps	TBD*
Video	Encode: 4K30 (HEVC) Decode: 4K30 (HEVC/VP9)	Encoding: 4K120/ 8K30, H.264, H.265, VP8, VP9 Decoding: 4K240/ 8K60, H.264, H.265, VP8	Encoding: 4K30 (H.264/ H.265) Decoding: 4K60 (H.264/ H.265/ VP9)	Encode: up to 4K85 (HEVC/H.265/H.264) Decode: up to 4K135 (HEVC/H.265/H.264/AV1/VP9)
Bluetooth	Bluetooth 5.1/BLE	Bluetooth 5.1/ BLE	Bluetooth 5.2	N/A
Wi-Fi	Wi-Fi 5, 802.11a/b/g/n/ac 2.4/5Ghz (WCN3980)	Wi-Fi 6 2.4 & 5 GHz, 2 x 2 Wi-Fi MIMO*	Wi-Fi 6E 2.4 & 5 & 6 GHz, 2 × 2 MU-MIMO	N/A
USB	1x USB3.1 with support for Type-C 1x USB2.0	1 x USB 3.1 (DP over type-C) + 1 x USB 3.1	1 x USB 3.1 (DP over Type-C) + 1 x USB 2.0	USB3.x TBD*
PCIe	-	1 x 2-lane PCIe Gen 3	1 x 2-lane PCIe Gen 3	1 x 2-lane PCIe Gen 4 TBD*
Lifetime	2030	2027	2036	2038

*** In Development Subject to Change**

Medium Level Features and Comparison

	Medium level		
Item	**Open-Q 4210RB SOM**	**Open-Q 4290CS SOM**	**Open-Q 615IQ SMARC**
Platform	QRB4210	QCS4290	615-IQ
Process	11 nm	11 nm	11 nm
Form-factor	36 x 36 x 2.7mm	36 x 36 x 2.7mm	82 x 50mm SMARC
SKU	QC-SOM-4210RB-B	QC-SOM-4290CS-B	TBD
Memory	2 – 6 GB Memory 16 -256 GB Flash	2 – 6 GB Memory 16 -256 GB Flash	TBD 6GB +64GB
OS	Android 12	Yocto Linux (Dunfell, 5.4)	Qualcomm Linux
CPU	4 × Kryo Gold 260 @ 2.0 GHz + 4 × Kryo Silver 260 @ 1.8 GHz	4 × Kryo Gold 260 @ 2.0 GHz + 4 × Kryo Silver 260 @ 1.8 GHz	Kryo™460: 2x Gold @ 1.9 GHz + 6x Silver-lite @ 1.6 GHz
NPU	1.7 TOPS Compute	1.7 TOPS Compute	~1.1 TOPs AI Engine with Hexagon DSP, Dual HVX (Vector Extensions)
GPU	Adreno 610 @ 950 MHz	Adreno 610 @ 950 MHz	Adreno 612 @ 950 MHz
Display	One 4-lane MIPI DSI, D-PHY 1.2 (1.5 Gbps / lane). Split link supported Up to FHD+ (1080 × 2520) aspect ratio APIs OpenGL ES 3.1, Vulkan 1.1, OpenCL 2.0	One 4-lane MIPI DSI, D-PHY 1.2 (1.5 Gbps / lane). Split link supported Up to FHD+ (1080 × 2520) aspect ratio APIs: OpenGL ES 3.1, Vulkan 1.1, OpenCL 2.0	2x 1920×1080 @ 60fps + 1x 1280×720 @ 60fps; Interfaces: 1x 4-lane MIPI DSI-2, 1x DP v1.4 (SST & MST) APIs: OpenGL ES 3.2, OpenCL 2.0, Vulkan 1.1, DirectX 12 FL9.3
Camera	3x 4-lane MIPI CSI Three cameras: 13 MP + 13 MP + 5 MP or 13 MP + 8MP + 8 MP Two cameras: 25 MP + 5 MP or 21 MP + 8 MP (13 MP + 13 MP) / (25 MP + 5 MP) at 30 fps, or 16 MP + 16 MP at 24 fps	3x 4-lane MIPI CSI Three cameras: 13 MP + 13 MP + 5 MP or 13 MP + 8MP + 8 MP Two cameras: 25 MP + 5 MP or 21 MP + 8 MP (13 MP + 13 MP) / (25 MP + 5 MP) at 30 fps, or 16 MP + 16 MP at 24 fps	2x 4-lane MIPI CSI (D-PHY 1.2); 1x 2-lane MIPI CSI (D-PHY 1.2) Qualcomm Spectra 230 ISP
Video	Encode & Decode: Up to 1080p 60 fps 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	Encode & Decode: Up to 1080p 60 fps 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	Decode: 4K 60fps (HEVC/H.265, H.264, VP8, VP9); Encode: 1080p 60fps (HEVC/H.265, H.264, VP8); Simultaneous Decode + Encode: 4K 30fps + 1080p 30fps
Bluetooth	Bluetooth 5.1/ BLE	Bluetooth 5.1/ BLE	N/A
Wi-Fi	802.11 a/b/g/n/ac, 1x1 MU-MIMO 2.4/5 GHz, WPA3, Bluetooth 5.1, and FM RDS/RBDS	802.11 a/b/g/n/ac, 1x1 MU-MIMO 2.4/5 GHz, WPA3, Bluetooth 5.1, and FM RDS/RBDS	N/A
USB	1 × USB 2.0/ 3.1 (Type-C)	1 × USB 2.0/ 3.1 (Type-C)	1x USB 3.1 Gen 1 (Type-C), 1x USB 2.0 (High-Speed) OTG
Lifetime	2032	2027	2038
Dimensions	36 x 36 x 2.7mm	36 x 36 x 2.7mm	82mm x 50mm x 3.5mm
Operating Temp	Extended (-25C to 85C)	Extended (-25C to 85C)	Extended (-25C to 85C)

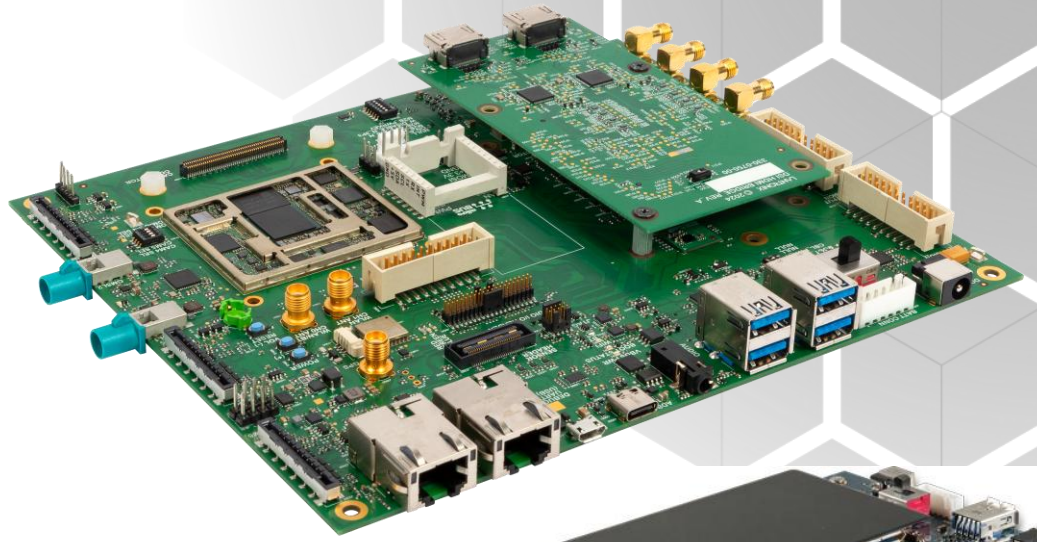
*** In Development Subject to Change**

Entry Level Features and Comparison

Entry Level		
Item	**Open-Q 2210RB SOM**	**Open-Q 2290CS SOM**
Platform	QRB2210	QCS2290
Dimensions	35 x 35 x 2.7mm	35 x 35 x 2.7mm
Form-factor	LGA	LGA
SKUs	QC-SOM-2210RB-A	QC-SOM-2290CS-A
Memory	2 GB Memory + 16 GB Flash	2 GB Memory + 16 GB Flash
Process	11 nm	11 nm
OS	Android 12/ 13	Yocto Linux
CPU	4 × A53 @ 2.0 GHz	4 × A53 @ 2.0 GHz
NPU	-	-
GPU	Adreno 702 @ 845 MHz	Adreno 702 @ 845 MHz
Display	One 4-lane; DSI D-PHY 1.2. Split link supported OpenGL ES 3.1, Vulkan 1.1, OpenCL 2.0 HD+ (1680x720) @ 60 fps	One 4-lane; DSI D-PHY 1.2. Split link supported OpenGL ES 3.1, Vulkan 1.1, OpenCL 2.0 HD+ (1680x720) @ 60 fps
Camera	2x 4-lane MIPI CSI Two cameras: 13 MP +13 MP @ 30fps One camera: 25MP @ 30fps	2x 4-lane MIPI CSI Two cameras: 13 MP +13 MP @ 30fps One camera: 25MP @ 30fps
Video	Encoding/ Decoding: 1080p30, H.264, H.265	Encoding/ Decoding: 1080p30, H.264, H.265
Bluetooth	Bluetooth 5.0/ BLE	Bluetooth 5.0/ BLE
Wi-Fi	WiFi 5 1x1; BT 5.0 with WCN3950	WiFi 5 1x1; BT 5.0 with WCN3950
USB	1 × USB 2.0/ 3.1 (Type-C)	1 × USB 2.0/ 3.1 (Type-C)
Lifetime	2032	2032

Open-Q Development Kits and Accessories

- Development Kit and accessories available for each SOM
- Development Kits include:
  - Carrier board with SOM attached
  - ST Micro sensor board
  - 12V power supply
  - Quick Start Guide
  - Access to full documentation and SW updates with Dev Kit registration
  - Basic development kit support.
- Documentation:
  - Dev Kit User Guide, SOM Datasheet
  - Tech Notes to guide customer in their own design
  - Carrier Board design files as starting point for custom carrier board designs.



SmartEdge.ai Gateway

Seamless, Secure, Ready to Scale

Industrial-Grade Design

- Fanless, Ruggedized For Harsh Environments

AI & Video Performance Design

- Up To 15 Tops Compute

Typical Applications

- Security and Surveillance
- Smart Retail
- Industry 4.0

Long Life Span

- Long Term Support 2036+

SmartEdge Gateway Technical Specs

	SEG-200	SEG-100
Chipset	Qualcomm QCS6490	Qualcomm IQ-615
Dimension	130 x 135 x 60mm	130 x 135 x 60mm
Memory	8GB LPDDR5 + 64GB UFS	4GB LPDDR5 + 64GB UFS
Storage	M.2 MVNE, support expansion via user-accessible microSD card	
OS	Qualcomm Linux	
Device Management	OTA Upgrades Support for Lantronix AI development environment	
Compute	12.5 TOPs	1.1 TOPs
Connectivity	Global 4G/5G support with dual nano-SIM access. Dual-band Wi-Fi 6 / BLE 5.2	
Display	Mini DP	
Ethernet	10/100/1000 base Ethernet: Two LAN port POE and one WAN port POE++ PD	
COM Port	RS-232 & RS-485 Ports	
USB	USB 3.0 Type A + USB3.1 Type C (OTG)	
IO	Digital I/Os, 232/422/485	
Power	Input voltage: 10.8 ~ 60 V DC	
Operating Temperature	-40 °C ~ +85 °C	

SmartEdge.ai Block Diagram

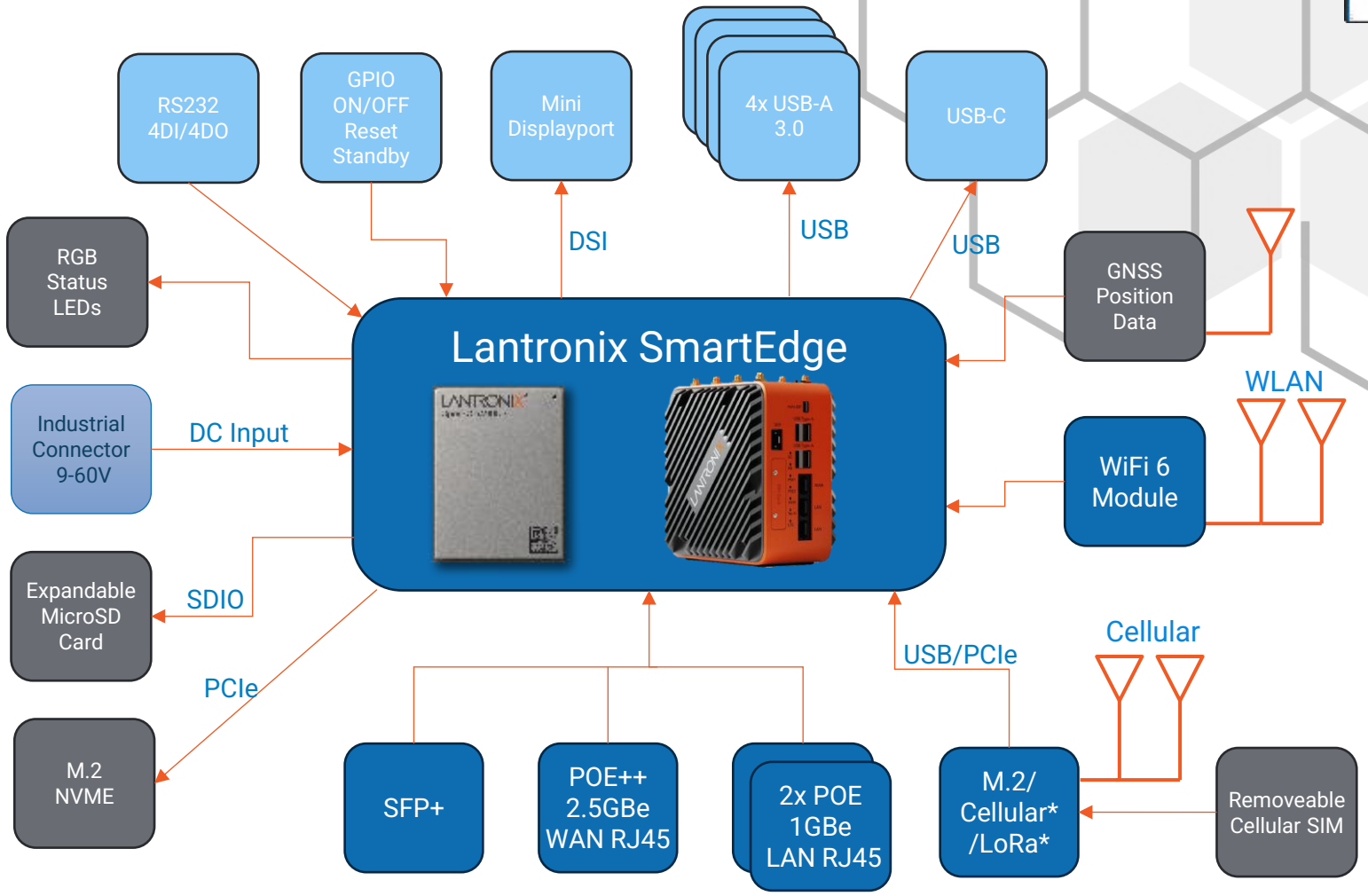
Inputs

Sensor Data

Video: Multiple cameras streams, MIPI, RTSP supporting various formats 4K, IR, thermal
Audio: Microphones for detection (gunshot, glass break) and 2-way communication.
Sensors: Motion (PIR/radar), tamper, GPS, environmental (temp, humidity).
Connectivity: Ethernet/PoE, Wi-Fi, LTE/5G, satellite, IoT bus.
Control Systems: Access control, alarms, analytics metadata, door sensors, LoRa
Power/Health: Power status, battery/solar, thermal monitoring, system diagnostics.

Typical Use Case

- Person Detection
- Loitering/Dwell Detection
- Crowd Counting
- Tracking
- ROI Definition
- Live Video Stream
- Event Data Transmission



Customer Applications

Customer's Operation Software Suites

- Smart City suite
- EV charging suite
- Advertisement suite

Generative AI

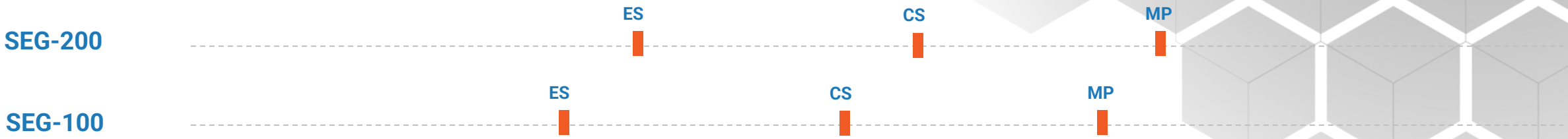
- Integration with LLM
- Customer Ease of Use

Device Management

- Device control and mgmt.
- OOB management

Edge Compute Platform Timeline

Product Schedule



Premium SoMs

Open-Q™ 9075IQ SOM

Size: 65 x 65 x 4.55 mm

Software

Qualcomm Linux

Ubuntu 24.04

Qualcomm

Based on the Qualcomm® IQ-9075 SoC

Key Features

- On-device AI Engine up to 100 INT-8 TOPS
- Two identical quad-core clusters (4x Gold Prime @2.36 GHz)
- Support up to 16 concurrent cameras
- Multiple PCIe, USB, and CAN-FD interfaces
- 2.5Gbps Time Sensitive Ethernet
- Up to SIL3 with dedicated safety island (9100IQ)
- Qualcomm Linux Support
- 18GB or 36GB LPDDR5 up to @ 3200MHz with ECC

Target Applications

- Multi-camera and smart camera systems
- Autonomous Mobile Robots
- Industrial Drones
- Industrial Gateway
- Edge AI Gateways
- Video Processing Box System
- Retail Analytics

Open-Q™ 9075IQ SOM IO and Features

Key features		Interfaces	
CPU	Kryo Gen 6 2x Quad Kryo Gold Prime with 512 KB L2 cache per core, targeting up to 2.36 GHz 2 MB shared L3 cache per cluster	**Display**	2x 4-lane MIPI DSI with VESA DSC v1.2, D-PHY v1.2 up to 20 Gbps total, or C-PHY v1.1 up to 34 Gbps total 4x eDP/DisplayPort v1.4 at 8.1 Gbps/lane, 32.4 Gbps/port, MST, and VESA DSC v1.2a and forward error correction Up to maximum of 48MP, example configuration is up to 5x 4K display
GPU	Adreno 663 GPU	**Camera**	4x MIPI CSI D-PHY 1.2 or C-PHY 2.0 camera ports with eight dedicated CCI I2C Up to 16 concurrent cameras, 2 IFE + 5 IFE Lit
DPU	Dual Hexagon Tensor Processor (integrated with Hexagon DSP, quad Hexagon Vector eXtensions, and dual Hexagon Matrix eXtensions co-processors), two general-purpose DSPs and one audio DSP Safety Island (SAIL) subsystem (9100IQ) or Real-time subsystem (9075IQ)		
VPU	Adreno 675 VPU @ 590MHz	**Audio**	Support LS-I2S interfaces, PCM/TDM interfaces, and High-speed I2S interfaces
NPU	AI Engine up to 100 INT-8 TOPS	**Touch Screen**	Capacitive touch, I2C support
Video	Video decode up to UHD275 with AV1, HEVC, H.264, H.265, VP9, and MPEG-2 Video encode up to UHD170 with HEVC, H.264, and H.265 Concurrent UHD120 decode and UHD60 encode or UHD60 decode and UHD120 encode Support for HDR10	**USB**	2x USB 3.1 Gen 2 (HS + SS, support device and host modes) 1x USB 2.0 (HS, support device and host modes)
Memory	18 GB 36 GB 2x UFS 3.1 gen 4, 2-lane interfaces, NVMe via PCIe	**PCIe**	1x PCIe Gen4 2-lane 1x PCIe Gen4 4-lane
OS	Qualcomm Linux Ubuntu 24.04	**Additional Interfaces**	1x SAIL domain RGMII interface with MDIO for Ethernet with AVB 8x CAN-FD interfaces located in SAIL domain I2C, SPI Controller, SPI Peripheral, QSPI, GPIO ports, and SAIL domain GPIO ports (9100 only)
WLAN	N/A		
Bluetooth	N/A		
Operating Temp	-40C to + 85C*	**Ethernet**	2x SGMII interfaces supporting up to 2.5 Gbps each 1x RGMII interface with MDIO for Ethernet with AVB
Form Factor	65 x 65 x 4.55 mm LGA		

*** Subject to change**

Open-Q™ 9075IQ Timeline

Product Schedule

Qualcomm Linux	CS	MP
Ubuntu 24.04	CS	MP

Development Kit

Part Number	Description
LOQ-9075IQ-EVK	Open-Q™ 9075IQ SOM Development Kit includes: • 1x Main board with an Open-Q 8550CS SOM (36GB LPDDR5x) assembled • Power supply with Type-C to barrel plug adapter • USB Type-C cable with Type-A adapter • Micro USB cable with Type-A adapter • Mini DisplayPort to DisplayPort cable • Mini DisplayPort to HDMI active adapter • Two mini speakers • PCIE edge card adapter for NVM Express (NVMe) • Pick tool to access DIP switches • Pin row header for low speed connector

LOQ-9075IQ-EVK

Open-Q™ 8750CS SOM

Size: ~43x43* TBD*

OS

Yocto Linux

Android 15*

Based on the Qualcomm® QCS8750 SoC

Key Features

- With 77 TOPS of AI compute, the processor supports INT4/8/16 and FP16 precision
- High-performance 3D graphics and ray tracing for immersive display systems
- Android™ 15* and Yocto Linux
- Multiple MIPI camera and display ports
- Multiple high speed connectivity options
- Long Life – until 2034+

Target Applications

- IP Cameras
- Multi-camera and smart camera systems
- Drones
- Multi-user AI Experiences
- Home Robots
- Retail Devices

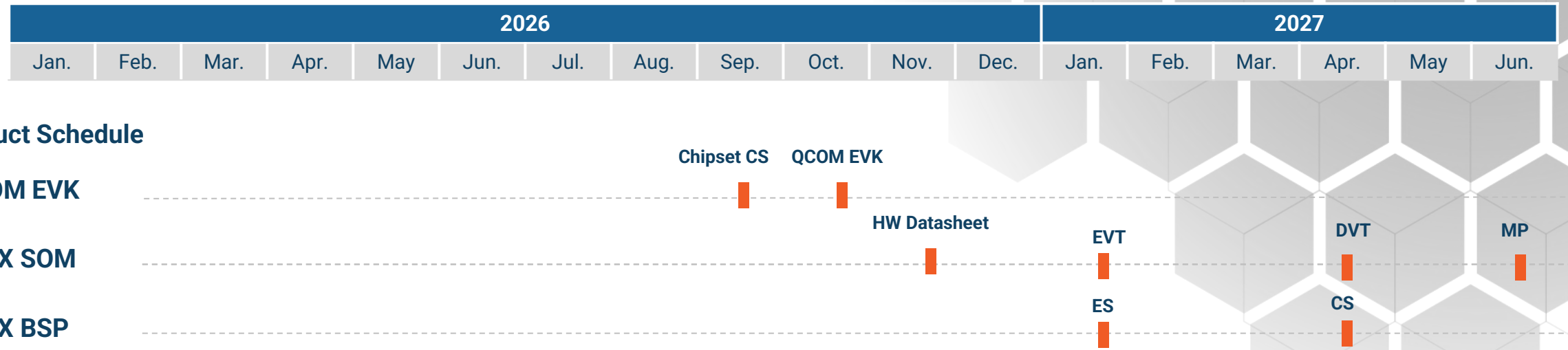
*In Development Subject to Change

Open-Q™ 8750CS IO and Features

Key Features		Interfaces	
CPU	QCS8750 SoC featuring Octa-core Qualcomm® Oryon™ CPU: Max clock speed of 4.32 GHz	**Display**	Adreno GPU Internal panel resolution up to 3840 x 2560 @ 144 Hz 2x MIPI-DSI, DP v1.4 up to 8K60 8x DSC v1.2 on MIPI-DSI ports
GPU	Adreno A830 : Max speed of 1.1 GHz	**Camera**	2x Always Sensing Camera (ASC) Qualcomm Spectra™ Image Signal Processor (ISP) 8-series 3x 48 MP at 30 fps ZSL ISP 6x 4-lane D-PHY 1.2/3-trio C-PHY 2.0 interfaces
Video	Encoding 8K @ 30fps / : 4K @ 60 fps (H.264/ H.265) Decoding: 8K @ 60 fps / 4K @ 120 fps (H.264/ H.265/ VP9/ AV1)	**Touch Panel**	Capacitive touch panel, controlled by I2C
Memory	4 GB + 64 GB*	**Audio**	Hexagon V79 @ 4-thread DSP 5x SoundWire, 8x DMICs, 7x I2S 32-Channel TDM/PCM support @ 48 kHZ Qualcomm Aqstic Audio Technologies
NPU	77 Dense TOPs	**USB**	1x USB 3.1 Gen 2 @ 10 Gbps, support USB Type-C with DP v1.4 eUSB 2.0
OS	Yocto Linux Android 15+	**PCIe**	1x PCIe Gen 3 2-lane
WLAN	Wi-Fi 7	**Additional Interfaces**	215x GPIO, UART, I2C, I3C, SPI, 10x I2C hubs via QUP Fifteen dedicated buses: 4x I3C/I2C, 3x SPI, 3x I2C, 2x UART, 2x I3C/I2C (for ASC), 1x I2C (for ASC) via sensors interfaces and supported sensors
Bluetooth	Bluetooth 6		
Form Factor	43.0 x 43.0 mm TBD*	**Operating Temp**	-30C to +105C*

***TBD Pending EVT and QCOM Availability**

Open-Q™ 8750CS Series Timeline



Sept 2026
- Qualcomm dev. kit (as per Qualcomm PDM)

Nov 2026
- SOM HW datasheet
- Pinout & STEP file

Jan 2027
- Early SOM Samples (EVT)
- ES Software

Apr 2027
- CS Software

Jun 2027
- Production SOMs (MP)

- Timeline subject to QCOM Availability for supply of production SOMs by end of Mar 2027.

Open-Q™ 8550CS SOM

Size: 54 x 45 x 3.6 mm

Compact:
33 x 39 x 3.85 mm

Qualcomm

Software

Android 13 / 15
Yocto Kirkstone
Ubuntu 22.04*

Based on the Qualcomm® QCS 8550 SoC

Key Features

- Extended Life (2034+)
- TAA & NDAA Compliant
- Pre-Certified Module ready for Production
- Up to 48 TOPs compute capabilities
- Easy to use form factor, perfect for mass production
- Support for multiple cameras

Target Applications

- Smart City and Retail
- Edge AI applications
- Advanced AI cameras
- Digital Signage
- Connected healthcare
- Multi-camera systems
- Machine vision platforms

Open-Q™ 8550CS SOM SKUs

SKUs	QC-SOM-8550W-A	QC-SOM-8550W-B	QC8550-1AP-EO (SSF)
Chipset	QCS8550	QCS8550	QCS8550
Size	54 x 45 x 3.6 mm	54 x 45 x 3.6 mm	33 x 39 x 3.85 mm
Form Factor	LGA	LGA	LGA
Temp	-25°C to +85°C	-25°C to +85°C	-25°C to +85°C
Memory + Flash	8 + 128GB	16 + 128GB	12 + 256 GB
Android	13+	13+	13+
Linux	Yocto Linux	Yocto Linux	Yocto Linux
WiFi/BLE	WiFi 7/BLE 5.3	WiFi 7/ BLE 5.3	N/A
Ethernet	10G	10G	N/A
GPIO	Full Support	Full Support	Full Support
BSP*	*Unified BSP provided for all SKUs*	*Unified BSP provided for all SKUs*	*Unified BSP provided for all SKUs*
TAA	Yes	Yes	Available upon request
NDAA	Yes	Yes	Yes
Schedule	MP	MP	CS in November

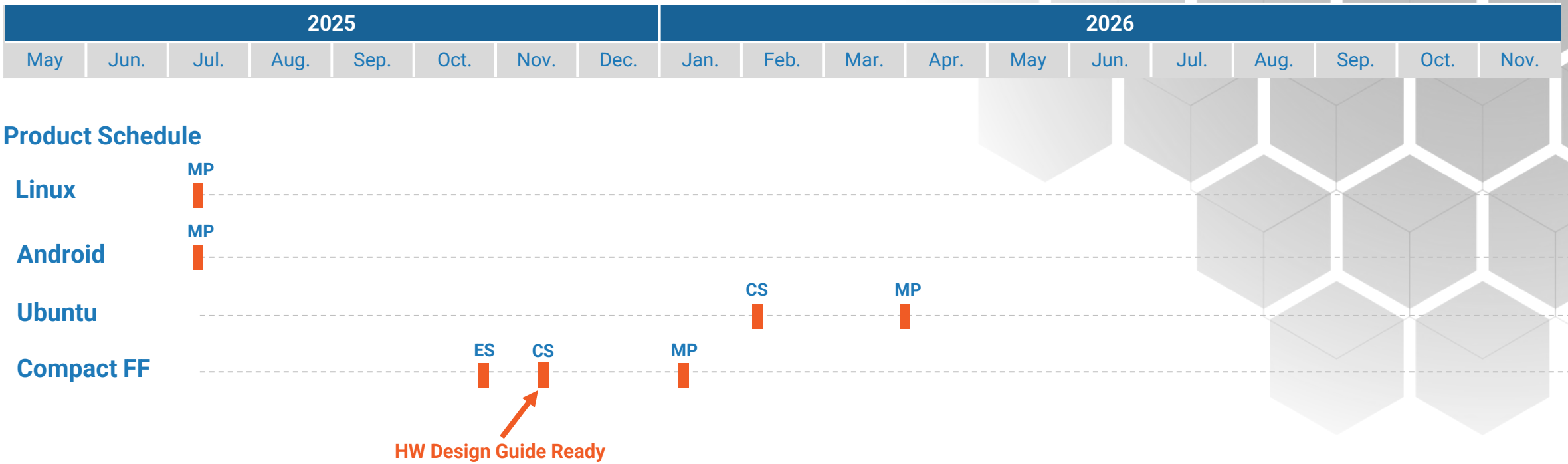
**All modules share the same software and BSP support, ensuring consistency across the product family.*

Top

Open-Q™ 8550CS SOM IO and Features

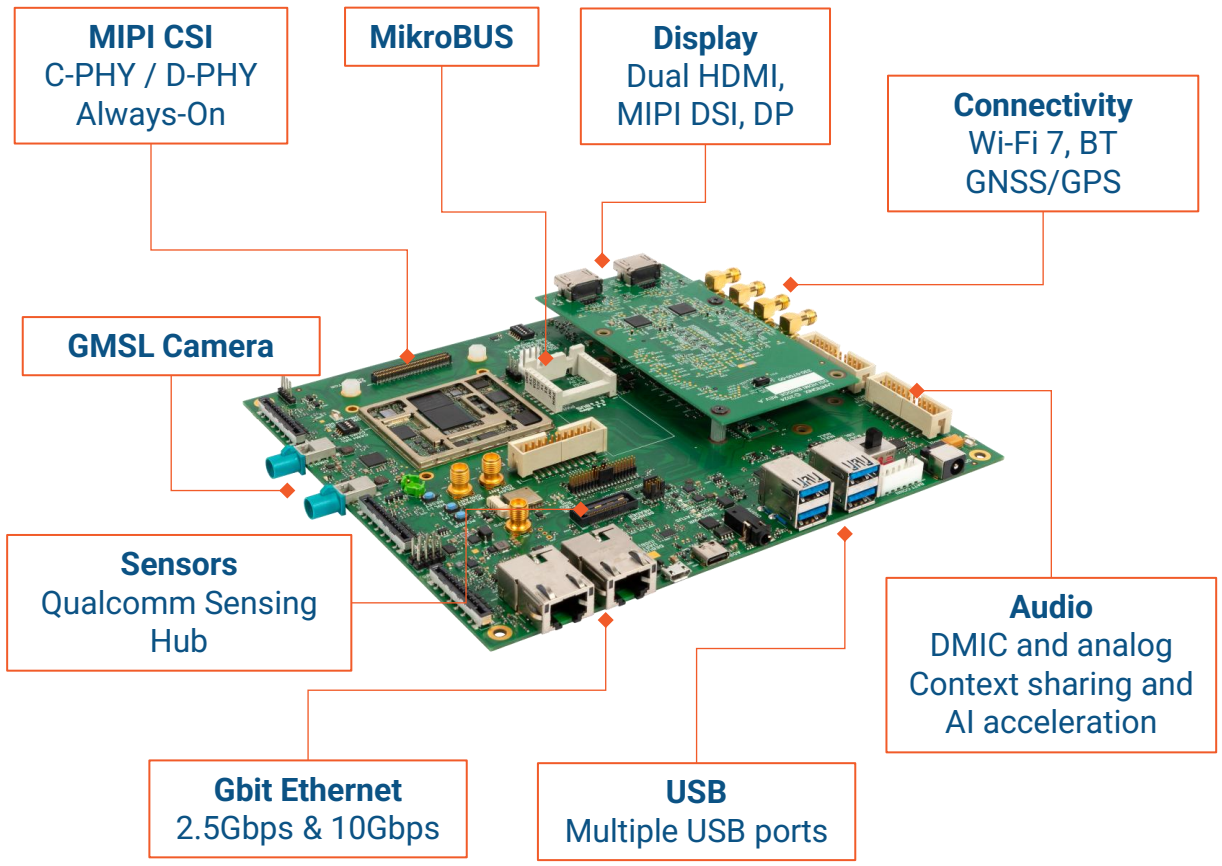
Key features		Interfaces	
CPU	QCS8550, 1 × Kryo Gold prime @ 3.2 GHz + 4 × Kryo Gold @ 2.8 GHz + 3 × Kryo Silver @ 2.0 GHz	**Display**	Adreno DPU 1295 2 x 4-lane MIPI DSI (3480 × 2160 @ 120 Hz, 3360 × 1600 @ 144 Hz) + 2 x DP (MST Mode), 4K60
GPU	Adreno 740	**Camera**	8 x 4-lane MIPI CSI, up to 14x/20x cameras, 5x concurrent, 3 x ISP + 2 x Lite ISP. some ZSL example are: (36 M + 36 M + 36 M) @ 30 fps - triple camera, or (64 M + 36 M) @ 30 fps - dual camera, or 108 M @ 30 fps - single camera
DPU	Adreno 1295 DPU, 2 x 4-lane MIPI DSI, 3480 x 2160 @ 120 Hz, 3360 x 1600 @ 144 Hz + 2 × DP (MST Mode), 4K60		
VPU	Adreno VPU 8550	**Audio**	Supports WCD938x high fidelity audio codec and WSA884x
NPU	Dual eNPU V3 48 INT8, 12 FP16 TOPs	**Touch panel**	Capacitive touch panel, I2C controls
Video	Encoding: 4K @ 120 fps; 8K @ 30 fps Native encoding supports for H.265, H.264 Decoding: 4K @ 240 fps; 8K @ 60 fps Native decoding supports for H.265, H.264, and VP9	**USB**	1x USB 3.2 Gen 2 with support for Type-C + DisplayPort v1.4 1x USB 3.2 Gen 1
Memory	8 GB + 128 GB 16 GB + 128 GB 12 GB + 256 GB uSOM	**PCIe**	2x PCIe Gen3 2-lane
OS	Android 13+ Yocto Linux Ubuntu 22.04*	**Additional Interfaces**	2x SDC v3.0 1x SDIO UART, I2C, I3C, SPI, GPIOs, sensor I/O to Qualcomm Sensing Hub 3.0
WLAN	Wi-Fi 7 2.4 & 5 & 6 GHz, 2 × 2 Wi-Fi MU-MIMO		
Bluetooth	Bluetooth 5.3 (BR/ EDR + BLE)		
Form Factor	54 x 45 x 3.6 mm LGA	**Ethernet**	Can be supported with the external conversion IC
Operating Temp	Up to -25C to +85C	**Antenna**	2x Wi-Fi/ Bluetooth and Wi-Fi MIMO antenna interfaces

Open-Q™ 8550CS SOM Timeline



Open-Q™ 8550CS Development Kit

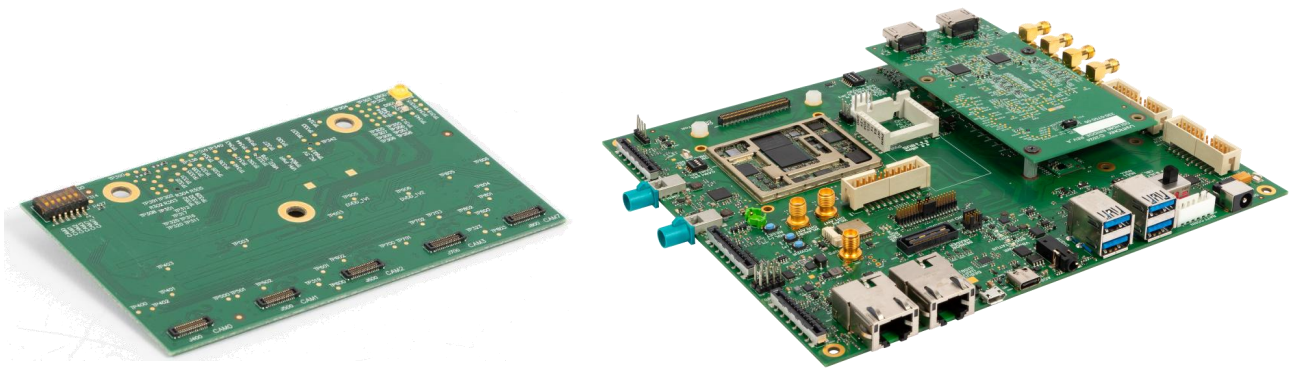
Engineered to fast-track your Edge AI solution product concepts



- Enclose to transform into an Edge AI solution prototype
- Gbit Ethernet ports
- Wi-Fi 7, BT5.3
- C-PHY & D-PHY MIPI CSI camera interfaces
- GMSL camera interface
- Always-on audio/voice, sensors, sensing hub, and Always-on camera
- HDMI, DP, MIPI DSI display ports; Support up to 3 concurrent displays
- USB, UART, SPI, and many more
- Integrated GNSS on Dev Board
- MikroBUS to evaluate or develop with wide range of market available sensors, connectivity modules, and more

Development Kit

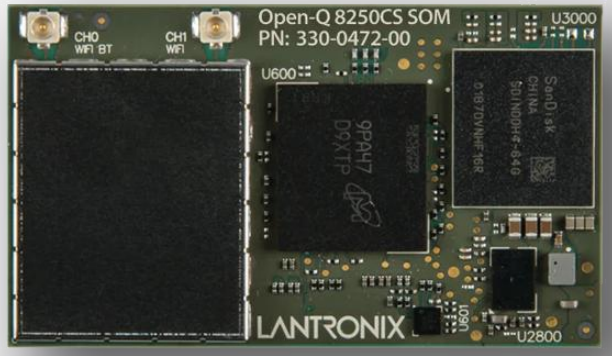
Part Number	Description
QC-DK-8550CS	Open-Q™ 8550CS Development Kit includes: • 1x Main board with an Open-Q 8550CS SOM (16GB LPDDR5x and 128GB UFS) assembled • 1x DSI to HDMI adapter board (assembled) • 1x Camera adapter board • 1x Power supply • 2x Wi-Fi & Bluetooth antennas • 1x USB debug cable
Compatible Accessories	
QC-DB-U10006	• 13MP camera accessory, sold separately. • Based on 13MP Sony IMX258, D-PHY, auto focus, HDR recording, high frame rate, and 21cm JAE cable
Other accessories	• If customers require C-PHY camera, please contact Sales



QC-DK-8550CS

QC-DB-U1006

Open-Q™ 8250CS SoM



Size: 50 x 29 mm

Qualcomm

Software

Android 13

Based on the Qualcomm® QCS8250 SoC

Key Features

- AI Engine up to 15 TOPS
- Dedicated Computer Vision Engine
- Multiple MIPI camera and display ports inputs/outputs
- Multiple high speed connectivity options
- Integrated WiFi 6 connectivity
- Ultra-compact 50 x 29 mm form factor
- Extended Life 2034+

Target Applications

- Video collaboration
- Edge AI applications
- Advanced AI cameras
- Digital Signage
- Smart retail/POS
- Connected healthcare
- Multi-camera systems
- Machine vision platforms

Open-Q™ 8250CS IO and Features

Key features		Interfaces	
CPU	QCS8250, 64-bit application processors (Kryo 585) with 4 MB L3 cache: 1 × Kryo 585 Gold prime core @ 2.842 GHz - with 512 KB L2 cache + 3 × Kryo 585 Gold cores @ 2.419 GHz - with 256 KB L2 cache per core + 4 × Kryo 585 Silver cores @ 1.805 GHz - with 128 KB L2 cache per core	**Display**	2 × 4-lane MIPI DSI 5040 × 2160 @ 60 fps with 8-lane MIPI 2 × (2560 × 2560 @ 60 fps with 4-lane MIPI) 2 × 4K @ 60 fps over DP (MST Mode)
GPU	Adreno 650 @ 587 MHz– 4K 60 fps UI or 2 × 2K 60 fps UI	**Camera**	3 × 4-lane MIPI CSI Spectra 480 ISP supporting multiple concurrent cameras Max. 64 MP @ 30 fps ZSL @ 2 × ISP
NPU	NPU230 – Up to 15 TOPs	**Touch panel**	Capacitive touch panel, I2C controls
Video	Encoding: 4K @ 120 fps; 8K @ 30 fps Decoding: 4K @ 240 fps; 8K @ 60 fps H.264, H.265,VP8, HDR 10-bit video playback/capture (HLG, HDR10)	**Audio**	Supports WCD938x high fidelity audio codec SoundWire, MI2S, DMIC, TDM/PCM interfaces
		USB	1x USB 3.1 with support for Type-C + DisplayPort v1.4 1x USB 3.1 Type-A
Memory	8 GB + 128 GB 16 GB + 128 GB	**PCIe**	1x PCIe Gen3 2-lane
OS	Android 13+	**Additional Interfaces**	4-bit SD 3.0, UART, I2C, I3C, SPI, configurable GPIOs, sensor I/O to dedicated Hexagon™ sensor DSP
WLAN	Wi-Fi 6 – 802.11ax 2x2 MU-MIMO		
Bluetooth	Bluetooth 2.1 EDR/ 3.0 HS/ 4.2 LE/ 5.1 LE		
Form Factor	50 x 29 x4 mm w/ 2x 100-pin + 1x 120-pin board to board connectors	**Antenna**	2x Wi-Fi & Bluetooth antenna u.fl connectors
Operating Temp	-25C to +85C	**Power/Battery**	Power management and battery charging solution on SOM

Open-Q™ 8250CS SoM Timeline

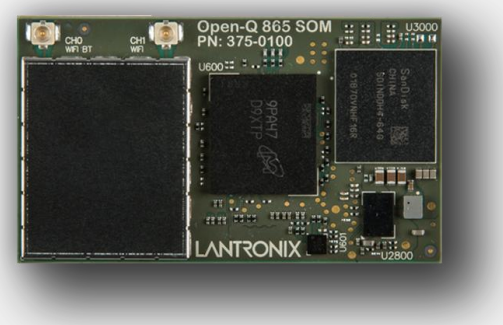
2024								2025										
May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.

Product schedule

Android

Production

Open-Q™ 5165 SOM



5165RB
Size: 50 x 29 x 3.6 mm

5165N
Size: 45 x 54 x 3.8 mm

Qualcomm

PRODUCT LONGEVITY PROGRAM

OS

ROS
Robot Operating System

docker

Based on the Qualcomm® QRB5165 SoC

Key Features

- Ubuntu Linux Support
- compute up to 15 TOPS
- Dedicated Computer Vision Engine
- Up to 6x MIPI camera ports
- Up to 2x MIPI display ports
- 2x USB 3.1 & 2x SD Interfaces
- Multiple high speed connectivity options
- Integrated WiFi 6 Support
- gstreamer MM framework

Target Applications

- Advanced Robotics –
- AI-enabled Drones/UAVs
- Embedded vision platforms
- Advanced medical diagnostics processing
- AI edge computing systems processing gateways
- Face and object detection and recognition

FC

COMPLIANT · COMPLIANT
REACH

RoHS Compliant

Open-Q™ 5165RB IO and Features

Key Features		Interfaces	
CPU	QRB5165, 64-bit application processors (Kryo 585) with 4 MB L3 cache: 1 × Kryo 585 Gold prime core @ 2.842 GHz - with 512 KB L2 cache + 3 × Kryo 585 Gold cores @ 2.419 GHz - with 256 KB L2 cache per core + 4 × Kryo 585 Silver cores @ 1.805 GHz - with 128 KB L2 cache per core	**Display**	2 x 4-lane MIPI DSI 5040 × 2160 @ 60 fps with 8-lane MIPI 2 x (2560 × 2560 @ 60 fps with 4-lane MIPI) 2 x 4K @ 60 fps over DP (MST Mode) Wi-Fi display: 4K @ 60 fps
GPU	Adreno 650 @ 587 MHz– 4K 60 fps UI or 2 × 2K 60 fps UI	**Camera**	3 x 4-lane MIPI CSI Max. 64 MP @ 30 fps ZSL @ 2 x ISP
NPU	NPU230 – Up to 15 TOPs	**Touch panel**	Capacitive touch panel, I2C controls
Video	Encoding: 4K @ 120 fps; 8K @ 30 fps Decoding: 4K @ 240 fps; 8K @ 60 fps H.264, H.265,VP8, HDR 10-bit video playback/capture (HLG, HDR10)	**Audio**	Supports WCD938x high fidelity audio codec SoundWire, MI2S, DMIC, TDM/PCM interfaces
		USB	1x USB 3.1 with support for Type-C + DisplayPort v1.4 1x USB 3.1 Type-A
Memory	6 GB + 64 GB 8 GB + 128 GB	**PCIe**	1x 2-lane PCIe Gen 3
OS	Ubuntu Linux 20.04	**Additional Interfaces**	4-bit SD 3.0, UART, I2C, I3C, SPI, configurable GPIOs, sensor I/O to dedicated Hexagon™ sensor DSP
WLAN	Wi-Fi 6 – 802.11ax 2x2 MU-MIMO		
Bluetooth	Bluetooth 2.1 EDR/ 3.0 HS/ 4.2 LE/ 5.1 LE		
Form Factor	50 x 29 x4 mm w/ 2x 100-pin + 1x 120-pin board to board connectors	**Antenna**	2x Wi-Fi & Bluetooth U.FL antenna connectors
Operating Temp	-25C to +85C	**Power/Battery**	Power management and battery charging solution on SOM

Open-Q™ 5165N IO and Features

Key Features		Interfaces	
CPU	QRB5165, 64-bit application processors (Kryo 585) with 4 MB L3 cache: 1 × Kryo 585 Gold prime core @ 2.842 GHz - with 512 KB L2 cache + 3 × Kryo 585 Gold cores @ 2.419 GHz - with 256 KB L2 cache per core + 4 × Kryo 585 Silver cores @ 1.805 GHz - with 128 KB L2 cache per core	**Display**	2 x 4-lane MIPI DSI 5040 × 2160 @ 60 fps with 8-lane MIPI 2 x (2560 × 2560 @ 60 fps with 4-lane MIPI) 2 x 4K @ 60 fps over DP (MST Mode) Wi-Fi display: 4K @ 60 fps
GPU	Adreno 650 @ 587 MHz– 4K 60 fps UI or 2 × 2K 60 fps UI	**Camera**	6 x 4-lane MIPI CSI Max. 64 MP @ 30 fps ZSL @ 2 x ISP
NPU	NPU230 – Up to 15 TOPs	**Touch panel**	Capacitive touch panel, I2C controls
Video	Encoding: 4K @ 120 fps; 8K @ 30 fps Decoding: 4K @ 240 fps; 8K @ 60 fps H.264, H.265,VP8, HDR 10-bit video playback/capture (HLG, HDR10)	**Audio**	Supports WCD938x high fidelity audio codec SoundWire, MI2S, DMIC, TDM/PCM interfaces
		USB	1x USB 3.1 with support for Type-C + DisplayPort v1.4 1x USB 3.1 Type-A
Memory	4GB or 8GB Configurable External UFS Flash	**PCIe**	1x 2-lane PCIe Gen 3 1x 1-lane PCIe Gen 3
OS	Ubuntu Linux 20.04	**Additional Interfaces**	4-bit SD 3.0, UART, I2C, I3C, SPI, configurable GPIOs, sensor I/O to dedicated Hexagon™ sensor DSP
WLAN	N/A		
Bluetooth	N/A		
Form Factor	LGA: 45 x 54 x 3.8 mm	**Antenna**	N/A
Operating Temp	-30C to +85C	**Power/Battery**	Power management and battery charging solution on SOM

Open-Q™ 5165 Differences

Key Features	5165RB	5165N
CPU	Kryo 585 w/ 1x Gold prime core @ 2.842 GHz + 3x Gold cores @ 2.419 GHz + 4 × Kryo 585 Silver cores @ 1.805 GHz	
GPU	Adreno 650 @ 587 MHz– 4K 60 fps UI or 2 × 2K 60 fps UI	
NPU	NPU230 – Up to 15 TOPs	
Video	Encoding: 4K @ 120 fps; 8K @ 30 fps	
	Decoding: 4K @ 240 fps; 8K @ 60 fps H.264, H.265,VP8, HDR 10-bit video playback/capture (HLG, HDR10)	
Memory	6 GB + 64 GB 8 GB + 128 GB	4GB or 8GB Configurable External UFS Flash
OS	Ubuntu Linux 20.04	
WLAN	Wi-Fi 6 – 802.11ax 2x2 MU-MIMO	N/A
Bluetooth	Bluetooth 2.1 EDR/ 3.0 HS/ 4.2 LE/ 5.1 LE	N/A
Display	2 x 4-lane MIPI DSI 5040 × 2160 @ 60 fps with 8-lane MIPI 2 x (2560 × 2560 @ 60 fps with 4-lane MIPI) 2 x 4K @ 60 fps over DP (MST Mode)	
Camera	3 x 4-lane MIPI CSI Max. 64 MP @ 30 fps ZSL @ 2 x ISP	6 x 4-lane MIPI CSI Max. 64 MP @ 30 fps ZSL @ 2 x ISP
USB	1x USB 3.1 with support for Type-C + DisplayPort v1.4 1x USB 3.1 Type-A	
PCIE	1x 2-lane PCIe Gen 3	2x 2-lane PCIe Gen 3
Form Factor	50 x 29 x4 mm w/ 2x 100-pin + 1x 120-pin board to board connectors	LGA: 45 x 54 x 3.8 mm
Operating Temp		

Open-Q™ 5165RB Timeline

Product schedule

Open-Q 865 Development Kit

- Dev Kit for the Open-Q 865 Family of SOMs:
  - Compatible with all 865 family of SOMs – 865XR, 5165RB, 7230CS and 8250CS
  - SOM Sold Seperately
- Dev Kit = Carrier Board + Pwr supply + SW + Docs + Ref Design
- Display and camera accessories optional
- Dev Kit platform enables:
  - Testing, evaluation of SOM, POC testing
  - Initial SW development
  - Connection of external peripherals
- Carrier board is a validated reference design

High SoMs

Open-Q™ 7790CS SOM

Size: ~43x43* TBD*

OS

Yocto Linux
Ubuntu

Based on the Qualcomm® QCS7790 SoC

Key Features

- On-device AI Engine up to 24 TOPS
- Support UFS and NVMe storage
- Android™ 13/15* and Qualcomm Linux
- Dedicated Computer Vision Engine
- Multiple MIPI camera and display ports
- Multiple high speed connectivity options
- Long Life – until 2034+

Target Applications

- IP Cameras
- Multi-camera and smart camera systems
- Drones
- Seatback monitors
- Rugged Handhelds

Open-Q™ 7790CS IO and Features

Key Features		Interfaces	
CPU	QCS7790 SoC featuring Kryo Octa-core CPU: 1x Prime @ 2.8 GHz + 4x Gold @ 2.4 GHz + 3x Silver @ 1.8 GHz	**Display**	1x 4-lane MIPI DSI D-PHY 1.2, up to FHD+ touchscreen support Support for USB3.1 Type-C with DisplayPort v1.4 and USB 2.0 Embedded DisplayPort (eDP) HDMI 2.1*
GPU	Qualcomm Adreno 722 @ 1.15GHz	**Camera**	14bpp, Triple TFE (21 + 21 + 21 MP) Single IFE Lite 2x 4K30 2-exp sHDR
Video	Encoding: 4K (H.264/ H.265) @ 60 fps Decoding: 4K (H.264/ H.265/ VP9/ AV1) @ 120 fps	**Touch Panel**	Capacitive touch panel, controlled by I2C
Memory	8 GB + 128 GB*	**Audio**	Support interfaces to WCD938x/WCD937x high fidelity audio codec
NPU	Up to 24 TOPs Compute	**USB**	1x USB 3.1 with support for Type-C + DisplayPort v1.4 with USB SS data concurrency
OS	Yocto Linux Ubuntu 24.04*	**PCIe**	1x PCIe Gen3 2-lane 1x PCIe Gen3 1-lane for connectivity
WLAN	Wi-Fi 7 2.4 & 5 & 6 GHz, 2 x 2 MU-MIMO, DBS*	**Additional Interfaces**	4-bit SDIO 3.0 3x UART I2C, I3C, SPI, configurable GPIOs
Bluetooth	Bluetooth 2.1 EDR/ 3.0 HS/ 4.2 LE/ 5.3 LE*		
Form Factor	43.0 x 43.0 x 2.70 mm TBD*	**Antenna**	2x (1x Wi-Fi/ Bluetooth antenna + 1x Wi-Fi MIMO antenna)
Operating Temp	-25C to +85C*	**Charge Management**	Supports battery voltage detection, fuel gauge, battery temperature detection

***TBD Pending EVT and QCOM Availability**

Open-Q™ 6490CS SOM

Size: 47 x 35 x 2.7 mm

OS

Android 13/15+

Yocto Linux

Based on the Qualcomm® QCS6490 SoC

Key Features

- On-device AI Engine up to 12.5 TOPS
- Support UFS and NVMe storage
- Android™ 13/15* and Qualcomm Linux
- Dedicated Computer Vision Engine
- Multiple MIPI camera and display ports
- Multiple high speed connectivity options
- Long Life – until 2036

Target Applications

- IP Cameras
- Multi-camera and smart camera systems
- Video telematics
- Video conferencing
- Retail self-check-out
- Digital signage
- Drones
- Rugged Handhelds

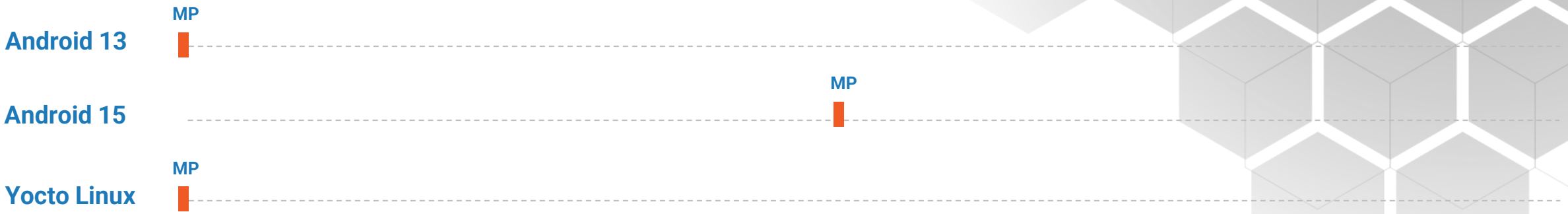
Open-Q™ 6490CS IO and Features

Key Features		Interfaces	
CPU	QCS6490 SoC featuring Kryo 670 Octa-core CPU: 1x Prime @ 2.7 GHz + 3x Gold @ 2.4 GHz + 4x Silver @ 1.8 GHz	**Display**	1x 4-lane MIPI DSI D-PHY 1.2, up to FHD+ touchscreen support Support for USB3.1 Type-C with DisplayPort v1.4 and USB 2.0 Embedded DisplayPort (eDP)
GPU	Qualcomm Adreno 643 @ 812 MHz	**Camera**	5x 4-lane MIPI CSI D-PHY 1.2 or C-PHY 1.2 with CCI I2C control Spectra 570L ISP supporting 36 MP + 22 MP at 30 fps or three 22 MP at 30fps ZSL.
Video	Encoding: 4K (H.264/ H.265) @ 30 fps Decoding: 4K (H.264/ H.265/ VP9) @ 60 fps	**Touch Panel**	Capacitive touch panel, controlled by I2C
Memory	4 GB + 64 GB - QC-SOM-6490L-A 8 GB + 64 GB - QC-SOM-6490CS-C 16 GB + 64 GB - QC-SOM-6490CS-D	**Audio**	Support interfaces to WCD938x/WCD937x high fidelity audio codec
NPU	Up to 12 TOPs Compute	**USB**	1x USB 3.1 with support for Type-C + DisplayPort v1.4 with USB SS data concurrency
OS	Android 13/14 Yocto Linux	**PCIe**	1x PCIe Gen3 2-lane 1x PCIe Gen3 1-lane for connectivity
WLAN	Wi-Fi 6E 2.4 & 5 & 6 GHz, 2 x 2 MU-MIMO, DBS (only on QC-SOM-6490L-A)	**Additional Interfaces**	4-bit SDIO 3.0 3x UART I2C, I3C, SPI, configurable GPIOs
Bluetooth	Bluetooth 2.1 EDR/ 3.0 HS/ 4.2 LE/ 5.2 LE (only on QC-SOM-6490L-A)		
Form Factor	47.0 x 35.0 x 2.70 mm - QC-SOM-6490CS	**Antenna**	2x (1x Wi-Fi/ Bluetooth antenna + 1x Wi-Fi MIMO antenna)
Operating Temp	-25C to +85C	**Charge Management**	Supports battery voltage detection, fuel gauge, battery temperature detection

Open-Q™ 6490CS Timeline

2025								2026										
May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.

Product Schedule



Open-Q™ 7230CS SoM

Size: 50 x 29 x 3.6mm

Qualcomm

Software

- Android 13
- Yocto Linux

Based on the Qualcomm® QCS7230 SoC

Key Features

- integrated WiFi 6 & BLE 5.1 in chipset
- Efficient CPU, GPU, neural, and DSP engines – up to 7 TOPs
- Various I/O interfaces to external systems to provide intelligent feedback
- smallest QCS7230 SOM module in world
- Pin Compatible with Open-Q 8250 and Open-Q 5165 Modules

Target Applications

- Video collaboration
- Edge AI applications
- Advanced AI cameras
- Connected healthcare
- Multi-camera systems
- Machine vision platforms

Open-Q™ 7230CS IO and Features

Key features		Interfaces	
CPU	QCS7230, 64-bit application processors (Kryo 585) with 4 MB L3 cache: 1 × Kryo 585 Gold prime core @ 2.84 GHz - with 512 KB L2 cache + 3 × Kryo 585 Gold cores @ 2.42 GHz - with 256 KB L2 cache per core + 4 × Kryo 585 Silver cores @ 1.80 GHz - with 128 KB L2 cache per core	**Display**	2 × 4-lane MIPI DSI 5040 × 2160 @ 60 fps with 8-lane MIPI 2 × (2560 × 2560 @ 60 fps with 4-lane MIPI) 2 × 4K @ 60 fps over DP (MST Mode) Wi-Fi display: 4K @ 60 fps
GPU	Adreno 650 @ 587 MHz− 4K 60 fps UI or 2 × 2K 60 fps UI	**Camera**	3x 4-lane MIPI CSI camera ports + CCI I2C control 1 × Full ISP + 2 × Lite ISP 1 × Front-end input: 25 MP (4:3 aspect ratio) or 18 MP (16:9 aspect ratio) 1 × Front-end input: Mono/ YUV interface Max. 64 MP @ 30 fps ZSL @ 2 × ISP
NPU	NPU230 – Up to 7 TOPs	**Touch panel**	Capacitive touch panel, I2C controls
Video	Encoding: 4K @ 120 fps; 8K @ 30 fps Decoding: 4K @ 240 fps; 8K @ 60 fps H.264 High Profile, H.265 Main 10 Profile,VP8, HDR 10-bit video playback (HLG, HDR10), HDR 10-bit capture (HLG)	**Audio**	Supports WCD938x high fidelity audio codec SoundWire, MI2S, DMIC, TDM/PCM interfaces
		USB	1x USB 3.1 with support for Type-C + DisplayPort v1.4 1x USB 3.1 Type-A
Memory	6 GB + 64 GB 8 GB + 128 GB	**PCIe**	1x 2-lane PCIe Gen 3
OS	Android 13 Yocto Linux (Kirkstone)	**Additional Interfaces**	4-bit SD 3.0, UART, I2C, I3C, SPI, configurable GPIOs, sensor I/O to dedicated Hexagon™ sensor DSP
WLAN	Wi-Fi 6 − 802.11ax 2x2 MU-MIMO		
Bluetooth	Bluetooth 2.1 EDR/ 3.0 HS/ 4.2 LE/ 5.1 LE		
Power Management	Power management and battery charging solution	**Antenna**	2x U.FL Wi-Fi & Bluetooth antenna connectors

Open-Q™ 7230CS Timeline

2024								2025										
May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.

Product schedule

Open-Q™ 610 uSoM

Size: 50 x 29 x 3.6mm

Software

- Android 10
- Yocto Linux

Qualcomm

Based on the Qualcomm® QCS610 SoC

Key Features

- SoC 11nm technology for high performance with low power
- On-device artificial intelligence & machine learning
- Native Ethernet interface for reliable high speed connectivity
- Three camera ports for multi-camera systems
- RTSP streaming support with GStreamer
- Multiple options for AI inference engines

Target Applications

- AI connected cameras
- Video conference systems
- Edge AI computing platforms
- 360-degree pano cameras
- Companion robots
- Dash cameras

Open-Q™ 610 IO and Features

Key features		Interfaces	
CPU	Qualcomm Kryo 460 CPU: 2 Kryo Gold 2.2 GHz cores + 6 Kryo Silver low-power 1.8GHz cores	**Display**	1x 4-lane MIPI DSI D-PHY 1.2, up to 1920 x 1080p at 60 fps
GPU	Adreno 650 @ 587 MHz– 4K 60 fps UI or 2 × 2K 60 fps UI	**Camera**	3x 4-lane MIPI CSI
Video	Encode: 4K30 8-bit HEVC Decode: 4K30 10-bit: HEVC/VP9	**Touch panel**	Capacitive touch panel, I2C controls
		Audio	Supports WCD9340 SLIMBus, SoundWire, and MI2S Interfaces
Memory	2 GB + 16 GB LPDDR4 4 GB + 32 GB LPDDR4	**USB**	1x USB3.1 with support for Type-C 1x USB2.0
OS	Android 12 Yocto Linux (Dunfell 5.4)	**PCIe**	
WLAN	Wi-Fi 5 – 802.11ac 1x1 MU-MIMO	**Additional Interfaces**	4-bit SD 3.0, UART, I2C, SPI, configurable GPIOs, sensor I/O to dedicated Hexagon™ sensor DSP
Bluetooth	Bluetooth 2.1 EDR/ 3.0 HS/ 4.2 LE/ 5.1 LE		
Power Management	Power management and battery charging solution		
		Antenna	x 1 Wi-Fi & Bluetooth antenna connector

Mid Level SoMs

Open-M™ 720G/520G

Size: 43 x 44 x 2.95 mm

Powered by MediaTek Genio

MEDIATEK

Software

Android 15

Yocto Linux

Ubuntu*

Based on the MediaTek Genio G720/G520

Key Features

- Powerful octa-core CPU and GPU for efficient industrial processing
- On-device AI acceleration with MediaTek 8th Gen NPU up to 10 TOPs
- 6nm process for efficient and low power AI/Machine Vision tasks
- Embedded connectivity with Wi-Fi 6E, Ethernet, PCIe, USB 3.1, and camera interfaces.
- Optional industrial grade -40°C to 105°C Tj
- 10 years longevity

Availability

Android
June 2026
Linux
Aug 2026

* In Development Subject to Change

Open-M™ 720G/520G IO and Features

Key features		Interfaces	
CPU	Genio 720: MT8391 6nm 2x Arm Cortex A78 2.6GHz, 6x Arm Cortex A55 2.0GHz	**Display**	4-lane MIPI DSI, 4-lane eDP, 4-lane DP Supports capacitive touch panel controlled by I2C
	Genio 520: MT8371 6nm 2x Arm Cortex A78 2.2GHz, 6x Arm Cortex A55 2.0GHz		
GPU/NPU	G720: Arm Mali G57 MC2 1.1GHz MediaTek 8th Gen NPU 10 TOPs	**Camera**	Two 4-lane MIPI CSI, up to 2.5 Gbps/ lane Supports 2 cameras, dual ISP, up to 16 MP + 16 MP @ 30 fps camera
	G520: Arm Mali G57 MC2 880 MHz MediaTek 8th Gen NPU 10 TOPS		Two 4-lane MIPI CSI, up to 2.5 Gbps/ lane Single camera, single ISP, up to 16 MP @ 30fps
Video	Encode: 4k @ 30 fps (H.265, H.264) Decode: 4K @ 60 fps (H.265, H.264, VP9)	**Touch Panel**	Capacitive touch panel, controlled by I2C
Memory / Storage	720G: 8GB LPDDR5x + 64GB UFS 520G: 4GB LPDDR5x + 64GB UFS	**Audio**	3 analog input: MIC0, MIC1 (earpiece), MIC2 3 analog output: Line-out, earpiece, headphone
OS	Android/Yocto Linux/ Ubuntu*	**USB**	3x USB3.2, 3x USB2.0
Wi-Fi	Wi-Fi 6 / 6E– 802.11ac/ax	**PCIe**	1x 1-lane PCIe Gen
Bluetooth	Bluetooth 5.x	**Additional Interfaces**	1 GbE Ethernet 4x UART, SD Card, SDIO, ADC, PCM, I2C, I2S/PCM, SPI, GPIOs
Operating Temp	-25C to +85C		
Form Factor	LGA 43mm x 44mm x 2.9mm	**Antenna**	Wi-Fi/ Bluetooth antennas

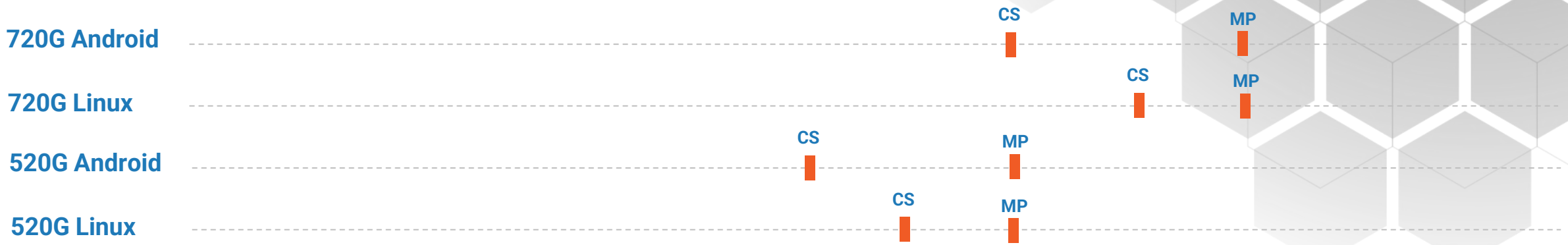
Top

* In Development Subject to Change

Open-M™ 720G/520G SOM Timeline

2025				2026												2027		
Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.

Product Schedule



Open-Q™ 615IQ SMARC

Size: 85 x 50 x 2.72 mm*
SMARC V2.2 Compliant

Software
Qualcomm Linux

Based on the Qualcomm® IQ 615 SoC

Key Features

- Powerful octa-core CPU and GPU for efficient industrial processing
- On-device AI acceleration with Qualcomm AI Engine and Hexagon DSP
- Rugged industrial-grade design for extreme temperatures (-40°C to +85°C)
- Flexible connectivity with Wi-Fi 6E, Ethernet, PCIe, USB 3.1, and camera interfaces.
- 10+ year lifecycle until 2037

Availability

Linux
December 2025

* In Development Subject to Change

Open-Q™ 615IQ SMARC IO and Features

Key features		Interfaces	
CPU	Based on IQ-615 Chipset with Kryo 460, 64-bit Octa-Core: 2x Kryo4 Gold @ 1.9 GHz + 6x Kryo4 Silver-lite @ 1.6 GHz	**Display**	1x 4-lane MIPI DSI-2; 1x DisplayPort v1.4 (supports SST and MST) Up to 2x 1920x1080 @ 60 fps + 1x 1280x720 @ 60 fps
GPU	Adreno 612; APIs: OpenGL ES 3.2, OpenCL 2.0, DX12FL9.3, Vulkan 1.x	**Camera**	Up to 6 cameras 1x 4-lane MIPI CSI-2 v1.3 (D-PHY 1.2) 1x 2-lane MIPI CSI-2 v1.3 (D-PHY 1.2)
Video	Decode: 4K @ 60 fps: HEVC/H.265 (10-bit), VP9, VP8, H.264 Encode: 1080p @ 60 fps: HEVC/H.265, H.264, VP8	**Touch Panel**	Capacitive touch panel, controlled by I2C
Memory	8 GB + 64GB* 16 GB + 64GB*	**Audio**	Up to 5x I2S/PCM/TDM 2x SLIMbus
OS	Qualcomm Linux/ Ubuntu*	**USB**	1x USB 3.1 Gen 1 (SuperSpeed), 1x USB 2.0 (High-Speed) OTG
Wi-Fi	Wi-Fi 6 – 802.11ax 2x2 MU-MIMO	**PCIe**	1x 1-lane PCIe Gen 3
Bluetooth	Bluetooth 2.1 EDR/ 3.0 HS/ 4.2 LE/ 5.3 LE	**Additional Interfaces**	1x RGMII / RMII with MDIO GB Ethernet AVB (1.8V only) Up to 14x 4-wire QUPv3 (UART, I2C, SPI) SD 3.0 (4-bit SDIO), QSPI for boot 100+ GPIO
Operating Temp	-40C to +85C		
Form Factor	SMARC V2.2 Compliant 82mm x 50mm	**Antenna**	2x (1x U.FL Wi-Fi/ Bluetooth antenna, 1x U.FL Wi-Fi MIMO antenna)

*** In Development Subject to Change**

Open-Q™ 615IQ SMARC Timeline

2025								2026										
May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.

Product Schedule

Open-Q™ 4200 Series

Size: 36 x 36 x 2.76 mm

Qualcomm

Software
Android 12
Yocto Linux

Based on the Qualcomm® QCS42x0 SoC

Key Features

- Compact SOM with Qualcomm QCS4290 (Android) & QRB4210 (Yocto Linux)
- Vivid graphics with Adreno 610
- Multiple high speed connectivity options
- Up to 6GB LPDDR4 and 256GB eMMC
- Long term support with extended life hardware and software support through 2027

Customer Benefits

- Cost-effective solution
- Secure Connectivity

Target Applications

- Edge AI applications
- Surveillance, dashboard, body camera with AI
- Fleet management, handhelds, panels
- Machine vision platforms

Open-Q™ 4200 Series Timeline

Key features		Interfaces	
CPU	QCS4290/QRB4210, Kyro 260 8x Up to 1.8GHz	**Display**	1x 4-lane MIPI DSI, D-PHY 1.2 (1.5 Gbps / lane) FHD+(2520 x 1080) @ 60 fps
GPU	Adreno 702 @ 845MHz Up to 1 TOPs	**Camera**	3x 4-lane MIPI CSI Three cameras: 13 MP + 13 MP + 5 MP or 13 MP + 8MP + 8 MP
Video	Encode & Decode: Up to 1080p 60 fps 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	**Touch Panel**	Capacitive touch panel, controlled by I2C
Memory	2 GB + 16 GB 4 GB + 64 GB	**Audio**	4x DMIC, support for two voice activation engines integrated low power island for voice activation Supports always-on noise suppression
OS	Android 12 Go Yocto Linux (Dunfell 5.4)	**USB**	1x USB 2.0/ 3.1 (Type-C)
Wi-Fi	Wi-Fi 5, 802.11 a/b/g/n/ac, 1x1; BT 5.0 with WCN3950	**Additional Interfaces**	UART/ SD card/ I2C/ SPI/ ADC/ GPIO Supported
Bluetooth	Bluetooth 2.1 EDR/ 3.0 HS/ 4.2 LE/ 5.0 LE		
GNSS	Optional External: WGR7640 with GPS/ BDS/ GLONASS/ Galileo/ QZSS		
Battery charge	Supported	**Antenna**	2x Wi-Fi & Bluetooth antenna interface

Open-Q™ 42x0 Series Timeline

2023								2024										
May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.

Product schedule

Linux — MP

Android — MP

Entry Level SoMs

Open-Q™ 2200 Series

Compact
Size: 35 x 35 x 2.7 mm

Software
Android 12/13
Yocto Linux

Qualcomm

Based on the Qualcomm® QCS22x0 SoC

Key Features

- Entry-tier solution that delivers greater performance, graphic, camera capabilities, and improved power performance
- Scalable volume deployment through future ConsoleFlow™ support for device management, zero-touch provisioning
- OTA updates for functionality and security
- Secure compute platform
- Lifetime: 2027+

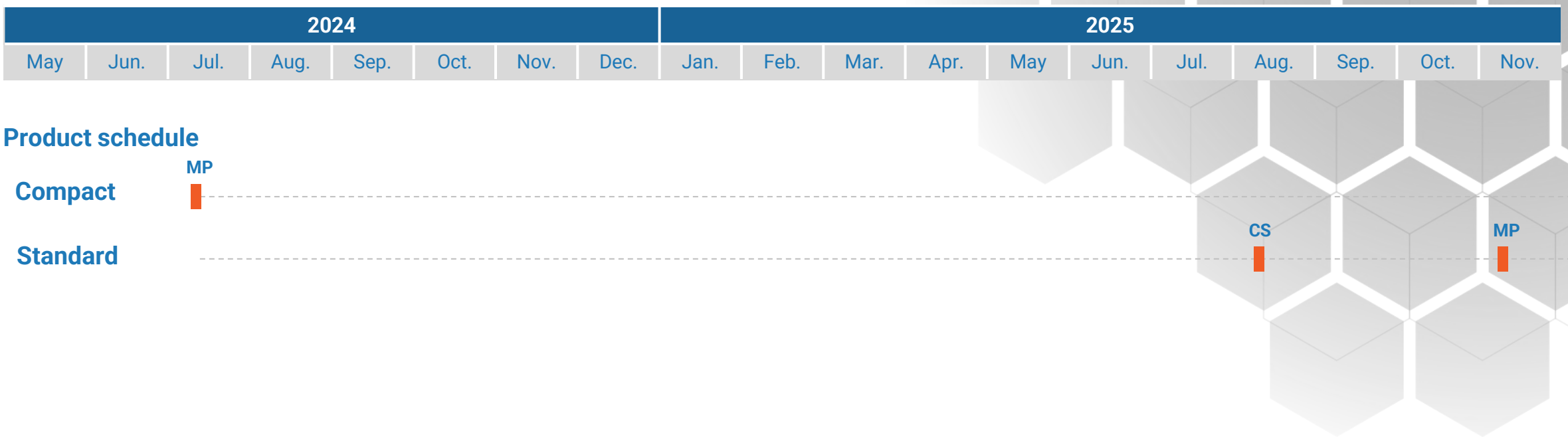
Target Applications

- Edge AI applications
- Surveillance, dashboard, body camera with AI
- Fleet management, handhelds, panels

Open-Q™ 22x0 Series IO and Features

Key features		Interfaces	
CPU	QCM2290, Quad-core ARM Cortex-A53 64-bit CPU @ 2.0 GHz	**Display**	1x 4-lane MIPI DSI, HD+ (1680 × 720) @ 60 fps
GPU	Adreno 702 @ 845MHz	**Camera**	2x 4-lane MIPI CSI Two cameras: 13 MP +13 MP @ 30fps One camera: 25MP @ 30fps
Video	Encoding: 1080P 8-bit H.264/ H.265 @ 30 fps Decoding: 1080P 8-bit H.264/ H.265 VP9 @ 30 fps	**Touch panel**	Capacitive touch panel, controlled by I2C
Memory	2 GB + 16 GB	**Audio**	4 x DMIC, support for two voice activation engines integrated low power island for voice activation Supports always-on noise suppression
OS	Android 12 Go Yocto Linux (Dunfell 5.4)	**USB**	1x USB 2.0/ 3.1 (Type-C)
Wi-Fi	WiFi 5, 1x1; BT 5.0 with WCN3950	**Additional Interfaces**	UART/ SD card/ I2C/ SPI/ ADC/ GPIO Supported
Bluetooth	Bluetooth 2.1 EDR/ 3.0 HS/ 4.2 LE/ 5.0 LE		
Battery charge	Supported	**Antenna**	2x Wi-Fi & Bluetooth antenna interface

Open-Q™ 22x0 Series Timeline



Open-Q™ 3000IQ Series

Compact
Size: 35 x 35 mm *TBD

Qualcomm

Software
Linux

Based on the Qualcomm® IQ3 SoC

Key Features

- Entry-tier solution delivering enhanced performance, camera capabilities, and improved power efficiency
- Supports discrete RISC-V MCU for ultra low power
- On-device AI Engine up to 0.5 TOPs
- Support QC Linux
- OTA updates for functionality and security
- Secure compute platform
- Lifetime: 2038+

Target Applications

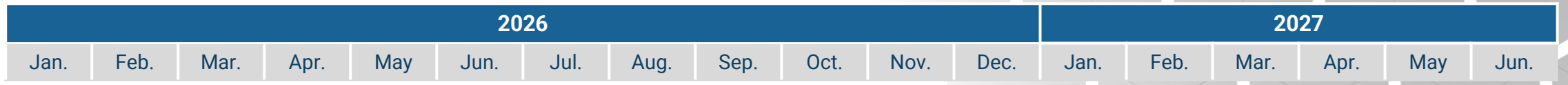
- Edge AI applications
- Surveillance, dashboard, body camera with AI
- Fleet management, handhelds, panels

Open-Q™ 3000IQ Series IO and Features

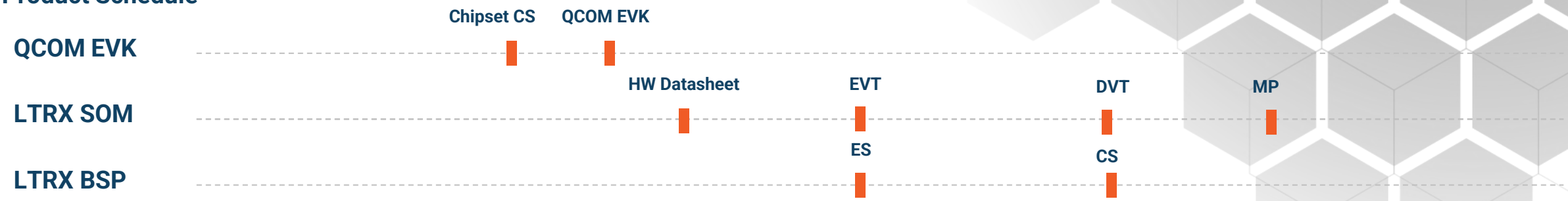
Key features		Interfaces	
CPU	1x A78 @1.9GHz 256KB L2 + 3x A55 @1.8GHz 512 KB L3, inline ECC with ~30K DMIPS	**Display**	1x 4-lane MIPI DSI (FHD60), 3D GPU (MH3.0 10.9) 73.6 GFLOPs (FP16)
MCU	SiFive E61 RISC-V MCU @ 600 MHz, 768kB memory, ~ 1.1K DMIPS	**Camera**	8MP 30fps, 2x4L CSI DPHY1.2/CPHY1.0
AI	0.5 TOPs (INT8)	**Touch panel**	Capacitive touch panel, controlled by I2C
Video	Encoding: 1080P 8-bit H.264/ HEVC/ HEIF @ 30 fps Decoding: 1080P 8-bit H.264/ HEVC/ V8,VP9 @ 30 fps	**Audio**	3x I2S (2-lane) 1x I2S (4-lane)
Memory	2+32 GB * 4+64 GB *	**USB**	1x USB3.2, 1x USB2.0
OS	QC Linux	**Additional Interfaces**	UART/ SD card/ I2C/ SPI/ ADC/ GPIO Supported
Bluetooth & WiFi	WiFi 6 & Bluetooth 2.1 EDR/ 3.0 HS/ 4.2 LE/ 5.0 LE	**PCIe**	1x 1-lane PCIe2
Package	35*35 mm LGA *	**Operating Temperature**	-40C to +85C

***TBD Pending EVT and QCOM Availability**

Open-Q™ 3000IQ Series Timeline



Product Schedule



Jun 2026
- Qualcomm dev. kit (as per Qualcomm PDM)

Aug 2026
- SOM HW datasheet
- Pinout & STEP file

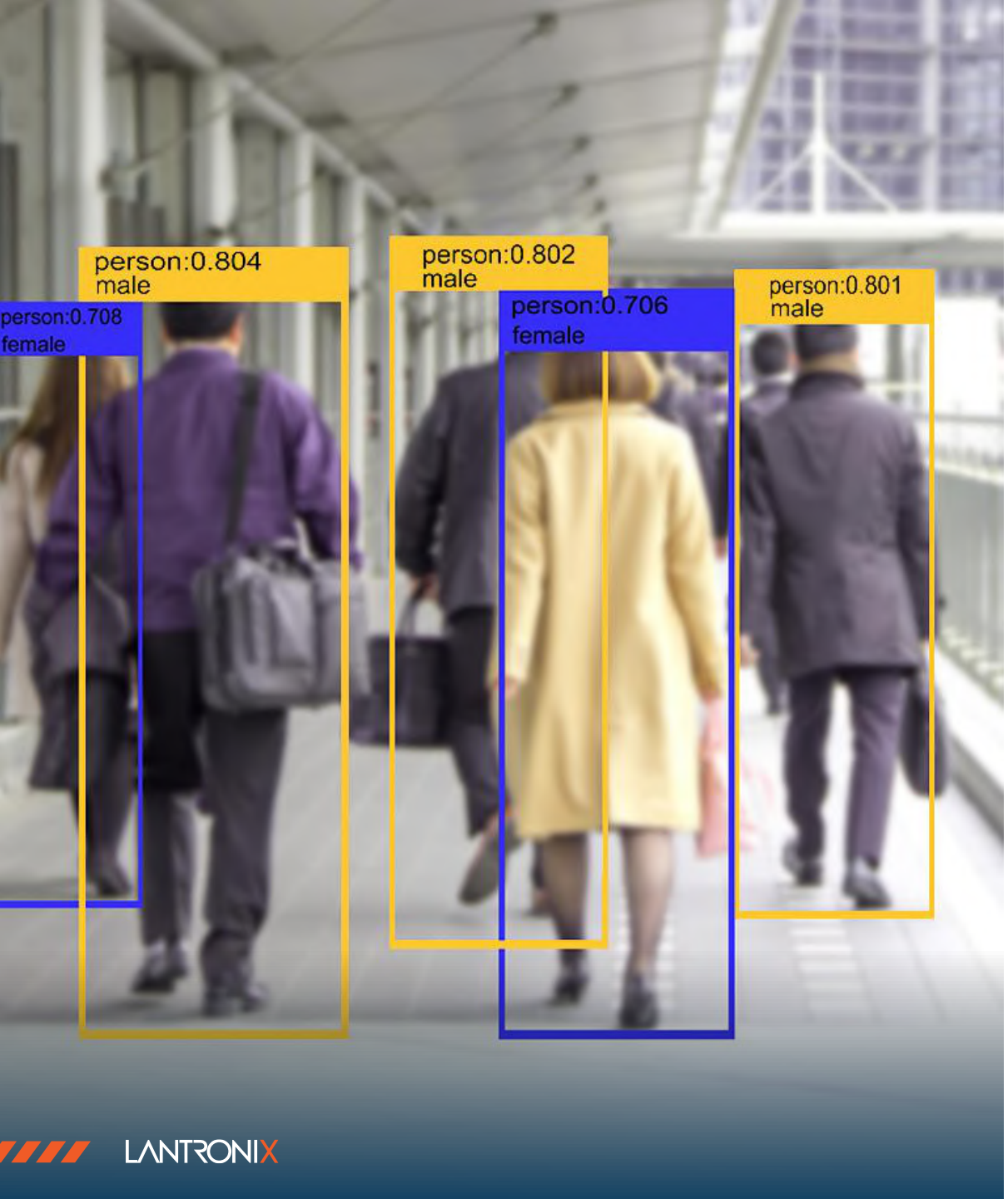
Oct 2026
- Early SOM Samples (EVT)
- ES Software

Jan2027
- CS Software

Mar 2027
- Production SOMs (MP)

- Timeline subject to QCOM Availability for supply of production SOMs by end of March 2027.

Use Cases



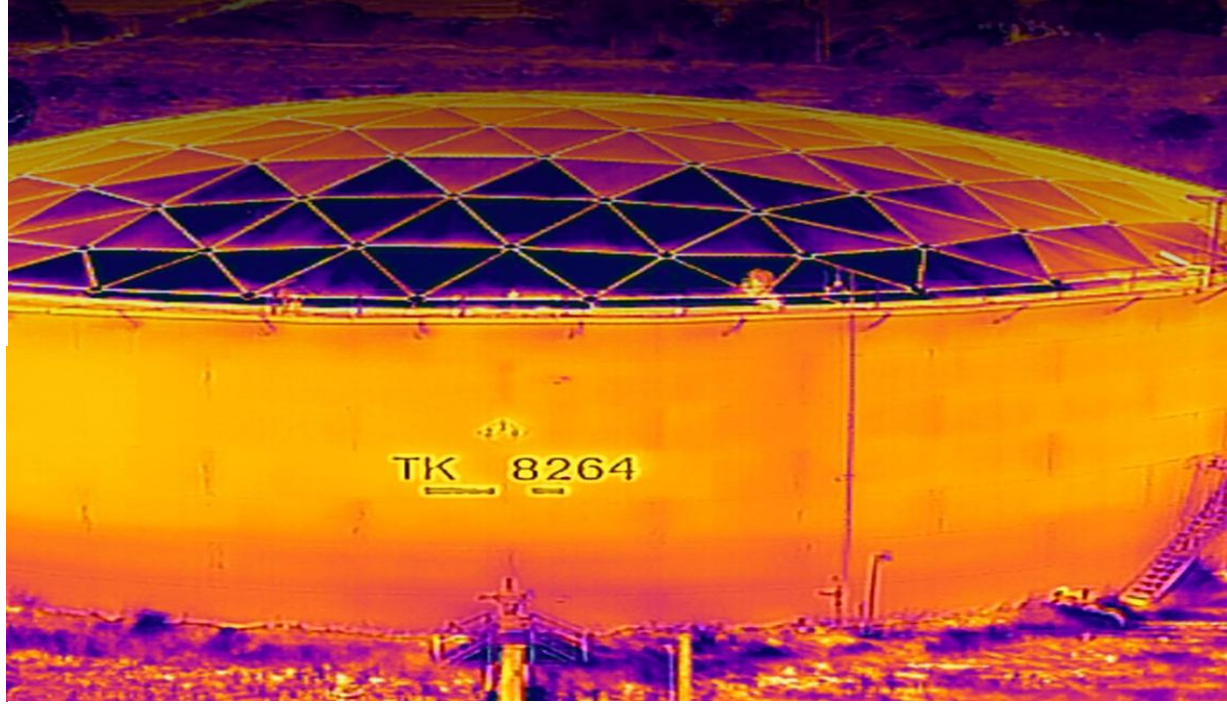
Edge Intelligence

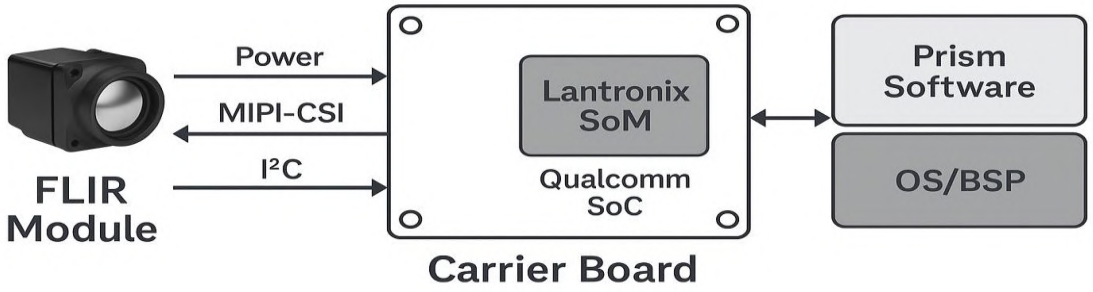
- **Lantronix is uniquely positioned in the AI value chain as Edge AI grows rapidly**
- **Working on new Edge AI programs with Qualcomm**
- **Key western scaling partner of Qualcomm**
- **Developing features to make it easier and faster to deploy AI-based solutions**
  - Edge AI box (processing power)
  - AI-enabled SOM middleware
  - AI model optimization and tools

AI-Enabled Solutions

Enabling Seamless Integration into AI-powered Thermal Camera Technology

- **Teledyne/Flir application of next-gen AI-enabled solutions in autonomous navigation/drones, surveillance & robotics**
- **Powered by our Open-Q™ SoMs based on Qualcomm Dragonwing platform**
- **Provides the flexibility to develop advanced thermal image processing (ISP) and AI capabilities to edge devices**





SOM and SOM Solutions for Complex Devices

Open-Q SOMs:

- Production-ready computing modules – core functionality for almost anything
- Processor, memory, Wi-Fi/BT, power management, battery charging

Development Kits and Accessories:

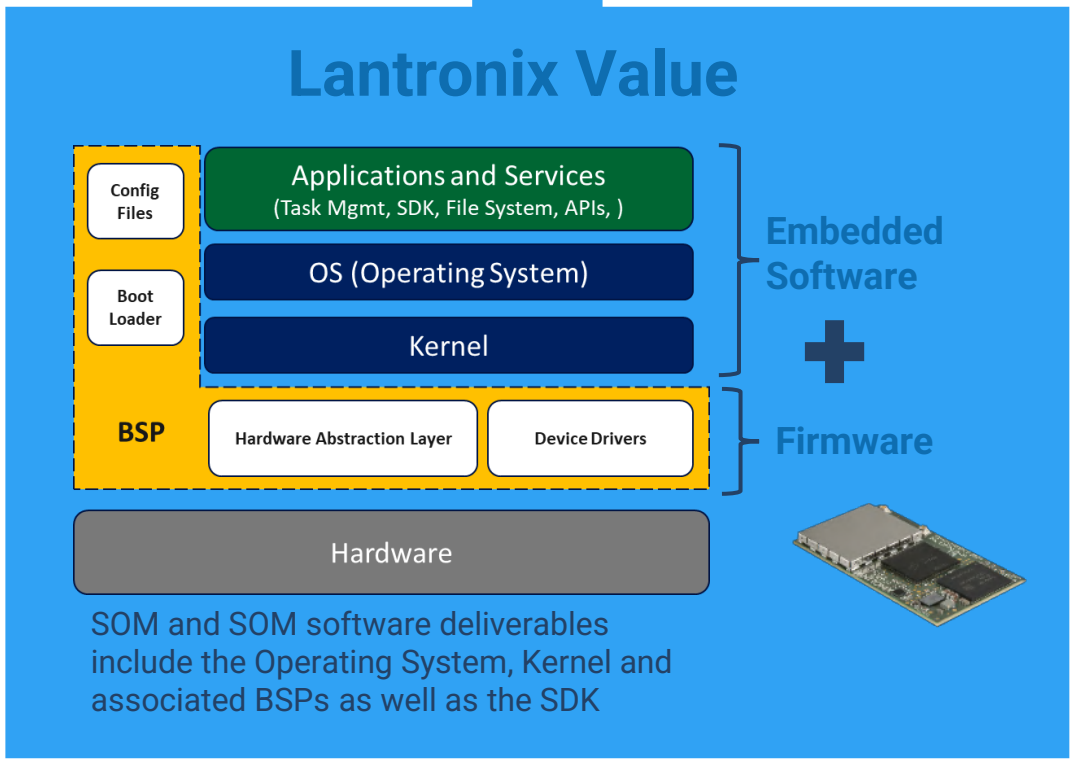
- Platform for evaluation of SOMs, initial development, PoC testing
- Proven HW reference design for carrier board, electronic design files, 3D CAD files
- Documentation – Schematics, Tech Notes, Design Guides
- Display and camera accessories – enable test and evaluation of SOM features

OS Software:

- Based on Qualcomm provided SW – Android or Linux
- Additions/modifications to support specific SOM/Dev Kit features
- Binary image and buildable source packages available
- Most SOMs ship with Android, some have Linux available

Expert Engineering Services:

- HW, SW engineering services – many years of experience providing Qualcomm solutions
- Access to required documentation, SW, and tech support from Qualcomm



LANTRONIX®

Thank You!

/LantronixIoT

/lantronix

@lantronix

www.lantronix.com

/user/LantronixInc