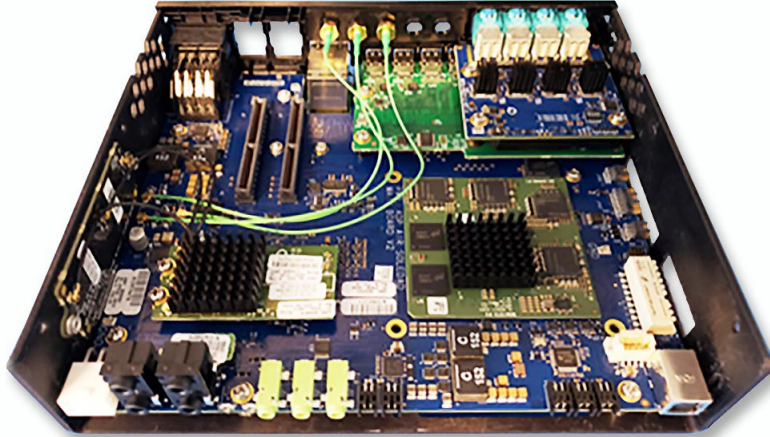# LANTRONIX®

SA8295P Automotive Development Platform
Based on the Qualcomm® Snapdragon™ SA8295P SoC

The SA8295P Snapdragon™ Automotive Development Platform (ADP) based on the Qualcomm® Snapdragon™ Automotive chipset from Qualcomm® Technologies, Inc. (QTI) provides OEMs and ecosystem partners with access to QTI's high-performance automotive infotainment platform.

This version of the ADP features the top tier QAM8295P. QAM8295P is the next generation Qualcomm® Snapdragon™ automotive infotainment module designed for superior performance and power efficiency. It has been developed as an SEooC (safety element out of context) targeting assumed ASIL B use cases. The key components of the QAM8295P module include SA8295P SoC, four instances of PMM8295AU power management IC, one third party power management IC, and two 556-ball LPDDR4X SDRAM.

SA8295P includes the following key components: Qualcomm® Kryo™ 695 CPU built on Arm v8 Cortex technology, Qualcomm® Adreno™ 695 GPU, Dual Qualcomm® Hexagon™ Tensor Processors, Qualcomm Spectra™ ISP 395, Adreno 665 VPU, Adreno DPU 1199, and dedicated Safety manager subsystem.

Key Features

- Features top tier SA8295P SoC
- Superior performance and power efficiency
- Dedicated Safety manager subsystem
- Display: Three DisplayPorts, one of them shared with USB 3.1, four 4-lane embedded DisplayPort v1.4b, two 4-lane MIPI DSI D-PHY v1.2
- Camera: Four 4-lane MIPI CSI configurable in 4 + 4 + 4 + 4 or split 2s configuration
- Audio: Six Class D Amplifier Analog OUT, four Analog/MIC Inputs, two A2B

Applications/Markets

- High performance, low power platform for developing, testing, optimizing and showcasing next generation in-vehicle infotainment solutions.

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.

Qualcomm snapdragon

LANTRONIX®

Lantronix SA8295P Automotive Development Platform

Hardware Specifications:

SA8295P Automotive Development Platform

• **Processor**	Snapdragon™ SA8295P SIP Qualcomm® Kryo™ 695 CPU built on Arm v8 Cortex technology Qualcomm® Adreno™ 695 GPU for the highest in graphics performance and power efficiency Dual Qualcomm® Hexagon™ Tensor Processors integrated with Qualcomm Hexagon DSP, quad Qualcomm Hexagon Vector eXtensions (HVX) processor, and dual Qualcomm Hexagon Matrix eXtensions (HMX) coprocessors for high performance machine learning use cases Qualcomm® Spectra™ ISP 395 image processing engine Adreno 665 VPU for high-quality, ultra HD video encode and decode Adreno DPU 1199 for ultra HD multi-display support Dedicated Safety Manager Subsystem equipped with dual ARC HS46 CPU in lock-step mode
• **Safety MCU**	1x Aurix TC397XX
• **Memory**	Eight-channel high-speed memory − 2133 MHz LPDDR4X SDRAM with optional low-power features (8 x 16-bit); 16 GB
• **Storage**	Two UFS 3.1 gear 4 − 2 lanes for on-board memory (UFS0 as boot up device); NVMe via PCIe (not-bootable)
• **Audio**	Six Class D Amplifier Analog OUT; Four Analog/MIC Inputs; Two A2B
• **Power Supply**	6V to 20V DC, typical 12V DC
• **Camera**	Four 4-lane MIPI CSI configurable in 4 + 4 + 4 + 4 or split 2s configuration
• **Display**	Three DisplayPorts, one of them shared with USB 3.1 Four 4-lane embedded DisplayPort v1.4b Two 4-lane MIPI DSI D-PHY v1.2
• **Connectivity**	Wi-Fi 6 (802.11ax) + Bluetooth 5.2 Dual MAC MIMO + MIMO (QCA6696) Dual-band dual-MAC radios for concurrent 2×2 MIMO 2.4GHz + 2×2 MIMO 5GHz operation Combined simultaneous maximum PHY rate of 1774Mbps 1x 1000 BaseT1 2x 100 BaseT1
• **I/O**	4x CAN-FD; 2x LIN
• **Sensors**	Gyro, Accelerometer - ASM330LHH; Magnetometer - AK09917D
• **Test and Debug**	JTAG: SoC, VIP; USB debug UARTs; Test automation

Software:

• **OS Support**	Linux Kernel v5.4, Yocto Project baseline 3.1

SA8295P Automotive Development Platform with Thermal Enclosure Configuration

Purchasing Information:

• **SA8295P Automotive Development Platform**	PN: ADP-8295-IVI
• **SA8295P Automotive Development Platform with Thermal Enclosure Configuration**	PN: ADP-8295-IVI-T
• **SA8295P ADP GMSL2 AR0231 Camera Accessory with Quad HFM Cable**	PN: ADP-8295-C

Learn more at lantronix.com/sa8295p

LANTRONIX®