Open-M™ 520G and 720G SOMs

Based on MediaTek Genio G520 and G720 System-on-Chip

Ideal for IoT+AI Applications

The Open-M™ 520G and 720G System on Modules are the newest platforms from Lantronix offering an AI performance of 10 TOPs, powerful 8-core processors, robust video/imaging processing capabilities, and flexible multi-display options. Based on MediaTek Genio 520 and 720 SoC, the Open-M 520G and 720G are designed for Edge IoT applications demanding efficient, low-power execution of Vision AI and GenAI tasks. Built on 6nm technology, the Genio 520 and 720 SoCs deliver best-in-class NPU and CPU power efficiency. They support the NVIDIA TAO framework for broader development compatibility across the ecosystem, offer multiple display and codec features for IoT multimedia applications, and include a rich set of peripherals tailored for industrial IoT.

Lantronix offers TAA and NDAA compliant products with at least 10 years of longevity for the System on Modules, with strict Bill-of-Material and quality control. Combined with over 20 years of hardware design and software development experience, and 1200+ successful projects, Lantronix will be your long-term partner, ensuring the ongoing success of your product.

Key Features

- MediaTek Genio 520 and 720 SoC
- MediaTek Deep Learning Accelerator supporting GenAI, Image Searching and Segmentation
- Efficient Power (< 4W)
- Advanced Multimedia for Dual Displays and 4K Resolution
- Multi-OS, long-life support

Applications

- Industrial and agricultural drones
- Smart security cameras
- Industrial IoT & HMIs
- Video conferencing and Smart Displays
- Autonomous Mobile Robots and Warehouse automation

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
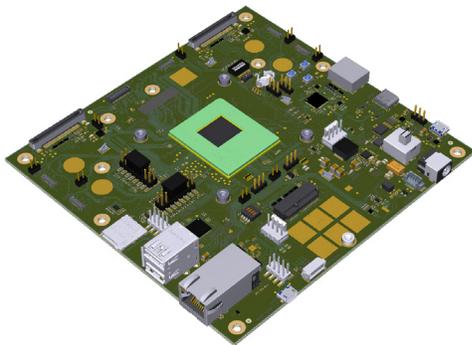- Thermal & power optimization

IoT product development made easy.

Lantronix Open-M™ 520G and 720G SOMs

Production Ready
Computing Module

Hardware Specifications:

		Genio 520: MT8371 6nm 2x Arm Cortex A78 2.2GHz, 6x Arm Cortex A55 2.0GHz	Genio 720: MT8391 6nm 2x Arm Cortex A78 2.6GHz, 6x Arm Cortex A55 2.0GHz
• **Processors**			
		Arm Mali G57 MC2 880 MHz MediaTek 8th Gen NPU 10 TOPS	Arm Mali G57 MC2 1.1GHz MediaTek 8th Gen NPU 10 TOPs
• **Memory/Storage**		4GB LPDDR5x + 64GB UFS	8GB LPDDR5x + 64GB UFS
• **Wireless**		Option for Wi-Fi 6/6E + Bluetooth 5.x	
• **Display Interfaces**		4-lane MIPI DSI, 4-lane eDP, 4-lane DP (multiplexed from USB3.0), 4-lane LVDS (multiplexed from DSI). Single display: 5120 x 2160 @ 60 fps, or 3840 x 2160 @ 60 fps, 2560 x 1600 @ 120 fps Dual displays: 2560 x 1600 @ 60 fps Supports capacitive touch panel controlled by I2C	
• **Cameras Interfaces**		2x 4-lane MIPI-CSI, up to 2.5 Gbps/lane, supports 2 cameras, single ISP, up to 16 MP	2x 4-lane MIPI-CSI, up to 2.5 Gbps/lane, supports 2 cameras, dual ISP, up to 16 MP + 16 MP @ 30 fps camera
• **Video Performance**	Decode	4k @ 60 fps (H.265, H.264)	
	Encode	4K @ 30 fps (H.265, H.264, VP9)	
• **Audio**		3 analog input: MIC0, MIC1 (earpiece), MIC2 3 analog output: Line-out, earpiece, headphone	
• **High Speed Connectivity**		1x PCIe Gen2 1-lane 1 GbE Ethernet	
• **I/O Interfaces**		3x USB3.2, 3x USB2.0, 4x UART, SD Card, SDIO, ADC, PCM, I2C, I2S/PCM, SPI, GPIOs	
• **Power/Battery**		Power management and battery charging solution on SOM	
• **Operating Environment**		Input voltage: 3.7V nominal Operating Temperature: -35°C to +75°C	
• **Form Factor**		43 x 44 x 2.95 mm LGA SOM	

Software:

• **OS Support**	Android™ 15 / Yocto Linux / Ubuntu*

* In roadmap

Companion Development Kit, accessories available separately

Purchasing Information:

MT0520-1WN-BL	4GB LPDDR5x, 64GB UFS, Wi-Fi SOM
MT0720-1WN-DL	8GB LPDDR5x, 64GB UFS, Wi-Fi SOM
LOM-720G-EVK	Open-M 720G SOM Development Kit

Alternate SOM configurations available by special order (minimum order quantities apply). Contact sales to discuss your specific needs today.

Certifications

Powered by
MediaTek Genio

Learn more at **lantronix.com/open-m-520g-720g-som**

LANTRONIX®