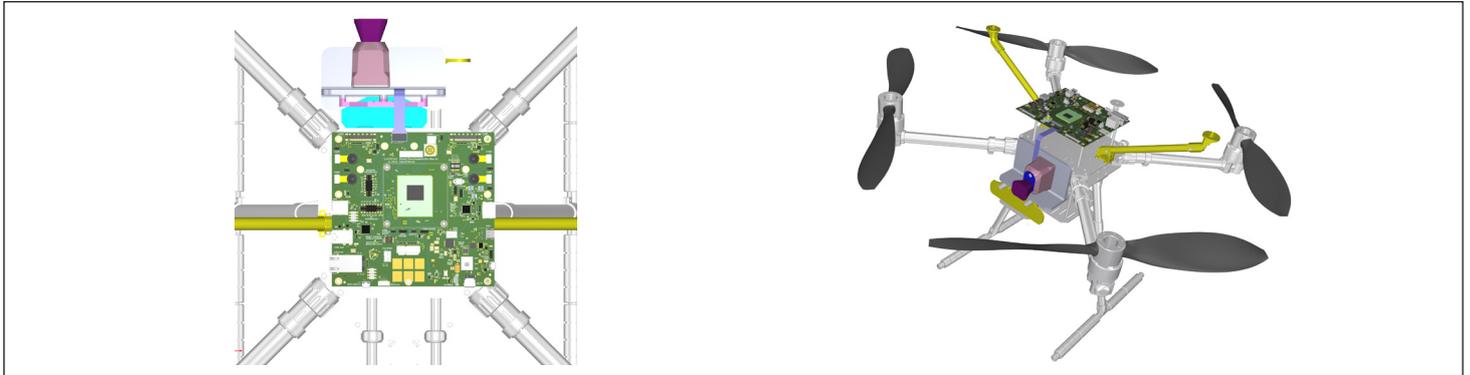


# Lantronix Drone Reference Platform

Based on the Lantronix Open-M™ 520G SOM



## From Concept to Flight Faster!

- Pre-integrated hardware and software eliminates months of integration work
- Cutting-edge solution built on MediaTek Genio G520 + Pixhawk 6X flight controller running PX4
- Multi-platform ready for multicopters, fixed-wings, VTOLs, rovers and UAVs
- Advanced AI Vision FLIR Hadron 640R thermal camera + onboard AI for real-time detection and tracking

The Lantronix Drone Reference Platform (DRP) allows drone OEMs to accelerate the development, validation, testing and deployment of their specific UAV designs, by enabling them to move from concept to flight-ready prototype in weeks instead of months. The DRP is based on Lantronix's Open-M™ 520G SOM an ideal development platform for drones and robotics leveraging the high performance Mediatek Genio G520 processor, with its 8th Gen NPU delivering 10 TOPS of on-device AI power.

Optimized for size, weight & power (SWaP) for UAV applications, the advanced thermal sensing capability combined with on-device AI provided by the Open-M 520G SOM, enables onboard detection, tracking, classification, and other advanced vision/AI tasks needed in Search & Rescue, Inspection & Monitoring, Security & Surveillance and Autonomous Robotics applications.

## Key Features and Benefits

- Lantronix Open-M 520G SOM
- Flight-ready
- Support for Pixhawk PX4
- Support for FLIR Hadron 640R
- Linux® Yocto and Android™
- On-device AI Engine with Qualcomm® Hexagon™ Tensor Processor (HTP)
- Multiple MIPI cameras
- Multiple wireless connectivity options
- NDAA compliant

## Applications

- First-Person View (FPV) Drones
  - Military & Defense
  - Cinematography & Filmmaking
- Industrial and Agricultural Drones
  - Infrastructure inspection
  - Construction & surveying
- Autonomous Mobile Robots (AMR)
  - Warehouse, Cleaning, Hospitality
- Industrial & Smart Display
  - Video conferencing
  - Industrial HMI

## Drone Engineering Services:

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

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

## Specialized drone capabilities:

- Camera sensor integration and multi-camera systems
- Advanced image tuning for low light, high contrast, and aerial conditions
- Machine learning for autonomous navigation and object detection
- Image and video stabilization for in-flight capture
- Complex camera use-cases: multiple concurrent cameras, gimbal integration, in-camera features, sensor synchronization
- Optimized mechanical, RF, thermal, and power design for extended flight performance

MEDIATEK

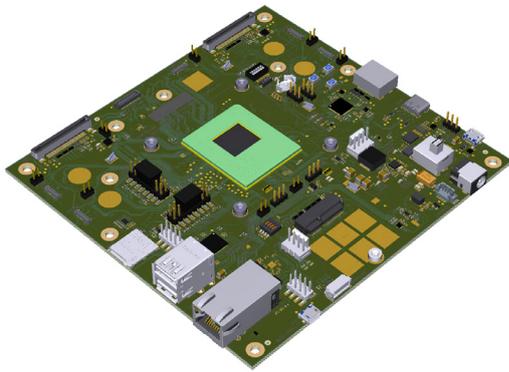


## Technical Specifications:

• <b>Open-M™ G720 SOM</b>	6nm MT8371 2x Arm A78 @2.2GHz, 6x Arm A55 @2.0 GHz	
	Arm Mali-G57 MC2 880MHz	MediaTek 8th Gen NPU 10 TOPS
• <b>Memory/Storage</b>	4GB LPDDR5x and 64GB UFS	
• <b>Wireless</b>	Option for embedded WiFi 6/6E / BT5.x	
• <b>Display Interfaces</b>	HDMI USB-C DP 1.4	
• <b>Supported Cameras</b>	FLIR Hadron 640R, and others (e.g. OV64B, OV9281, IMX258)	
• <b>Video Performance</b>	Decode	Video decode up to 4K60 (H.264/H.265/VP9), FHD60 (MPEG4/VP8)
	Encode	Video encode up to 4K30 (H.264/H.265)
• <b>I/O Interfaces</b>	1x Gb Ethernet, 2x USB3, 1x M.2 E-key, 1x USB-C, 1x uSD, CAN, headers for GPIO/I2C/SPI	
• <b>Power/Battery</b>	Power management and battery charging solution on SOM	
• <b>Operating Environment</b>	Input voltage: 3.7V nominal Operating Temperature: -25°C to +85°C	
• <b>Dimensions</b>	152 x 145 mm	

## Software:

• <b>OS Support</b>	Linux® Yocto and Android™
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## Certifications



Powered by  
**MediaTek**  
Genio

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Learn more at [lantronix.com/open-m-drone-reference-platform](https://lantronix.com/open-m-drone-reference-platform)