

dji Manifold Processing Unit

The Manifold is a high-performance embedded computer specially designed for the DJI Onboard SDK. It enables developers to transform aerial platforms into truly intelligent flying robots that can perform complex computing tasks and advanced image processing literally on the fly.

With the NVIDIA Tegra K1's 4-Plus-1 Quad-core ARM Cortex-A15 Processor and 192 GPU CUDA cores with clock speeds of up to 2.2 GHz, the Manifold allows you to take off with the world's most advanced mobile processors. The GPU cores provide powerful image

processing abilities, efficient parallel computing, and a blazing fast throughput of 326 GFLOPS. Now you can design more intelligent applications that unlock the full potential of your aerial platforms in whole new ways.



Convenient Development Environment

Designed for developers, the Manifold's built-in Ubuntu operating system supports CUDA, OpenCV and ROS. It is ideal for research and development of professional applications. The Manifold can natively run the DJI Onboard SDK, access flight data and perform intelligent control and data analysis. With CUDA, the Manifold can be used to accelerate your applications to achieve unprecedented levels of performance.

Technical Specifications:

Processor	Quad-core, 4-Plus-1™ ARM®
	Low-power NVIDIA Kepler™-based GeForce® graphics processor
	Image-signal processor
	Ultra low-power audio processor
	Advanced power management
	Dynamic voltage and frequency scaling
	Multiple clock and power domains
Memory	2 GB DDR3L RAM
	16 GB eMMC 4.51 storage
Audio	Combo audio jack(mic/headphone)
USB	USB Type-A Host 3.0×2
	USB Type-A Host 2.0×2
	Micro-B USB connector (Recovery USB): supports Force Recovery mode and Host mode
	Non-standard USB 2.0 interface with drone
Network	10/100/1000 BASE-T Ethernet
I/O	Half mini-PCIe expansion slot
	Mini Display HDMI connector
	UART connector
	Micro SD card slot
	I/O expansion headers
Buttons	Power
	Reset
	Recovery
Power Options	External 14 V~26 V AC adapter