

PX4 Autonomy Developer Kit Product Brief

ModalAI PX4 Autonomy Developer Kit is an all-in-one SLAM development drone supercharged by VOXL 2. The ModalAI PX4 Autonomy Developer Kit accelerates your path to autonomy and is pre-configured with SWAP-optimized sensors and payloads optimized for indoor and outdoor autonomous navigation with long-term support for Dronecode-hosted projects including a dedicated [forum](#) for product-related questions.



Perception

Built-in sensors to autonomously navigate indoors

- 1MP CV Tracking image sensor for visual inertial odometry (VIO) localization
- 12MP Hi-Res for real time streaming, RGB image capture and video recording



Autonomy

Out of the box algorithms that run onboard VOXL

- Visual Inertial Odometry to navigate in GPS denied environments
- Apriltag Detection for Relocalization
- TFLite Neural Networks run object classification, detection, and other models



Compute

Open development platform with premier processing power

- Powered by [VOXL 2 companion computer](#)
- Integrated [Qualcomm QRB5165](#) premium tier chipset onboard: 8 cores up to 3.091 GHz, 8GB LPDDR5
- [VOXL ESC Mini](#)
- Open-source software: OpenCV, ROS2 Foxy, Docker, PX4 1.14
- Built in WiFi, ELRS (Express LRS) R/C



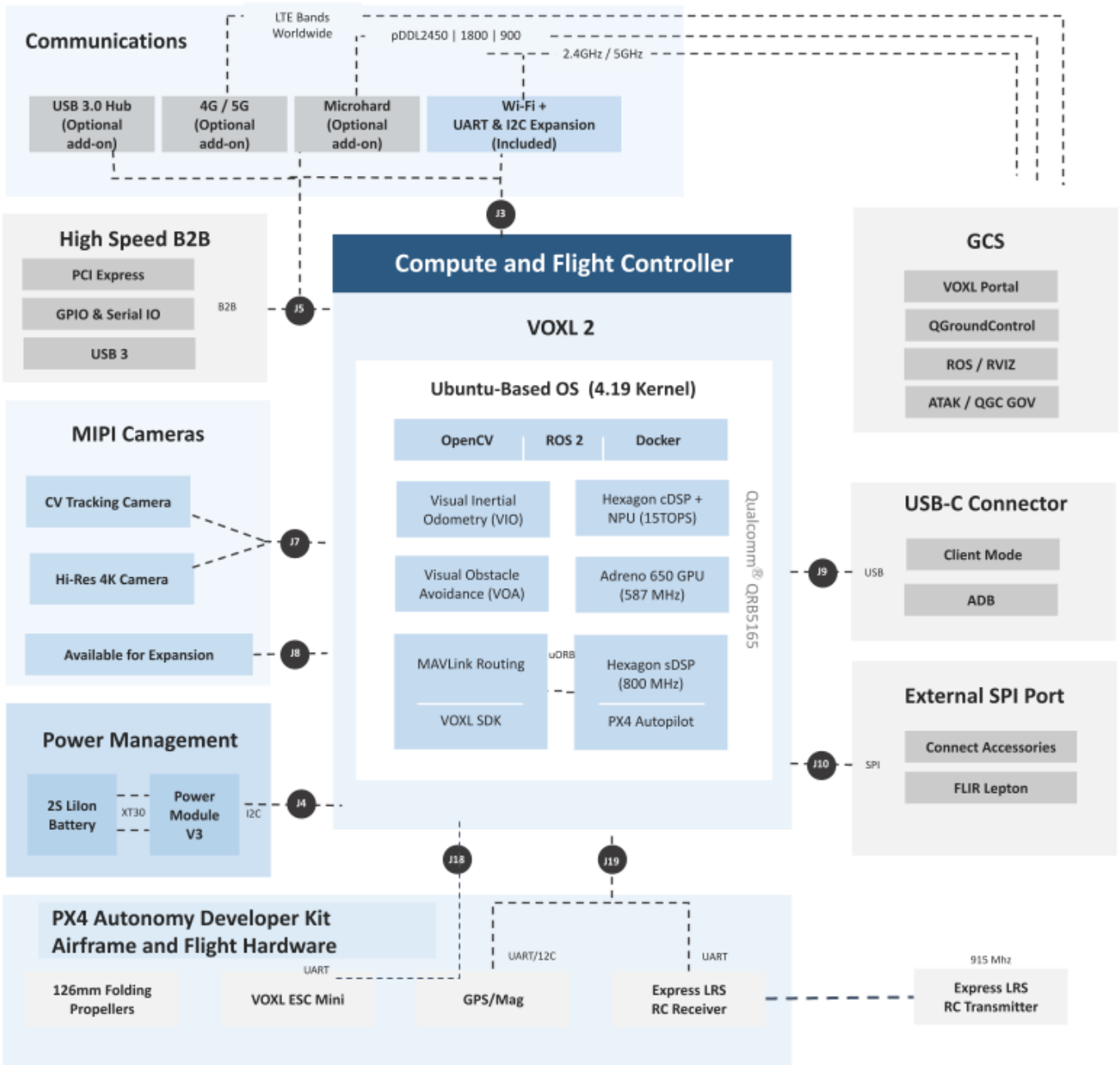
SWaP-Optimized Design

Designed to maneuver tight indoor spaces

- 265g take-off weight
- 220mm diagonal SWaP-optimized carbon fiber airframe
- 126mm folding propellers
- 30+ minutes flight time



PX4 Autonomy Developer Kit



PX4 Autonomy Developer Kit vs. VOXL 2 Starling Comparison Table

	PX4 Autonomy Developer Kit	VOXL 2 Starling
Autopilot	VOXL 2	VOXL 2
Price	Starting at \$2,749.99	Starting at \$2,949.99
Weight	265g	275g
Airframe	220mm	210mm
Propellers	126mm	120mm
Flight Time	30+ minutes	30+ minutes
Hi Res	Sony IMX412	Sony IMX214
Tracking	On-Semi AR0144	Omnivision OV7251
ToF	No	Yes
ESC	VOXL ESC Mini	VOXL 4-in-1 ESC
Landing Sensor	VL53L1X Rangefinder	No