ModalAI® accelerates development of smaller, smarter and safer drones with SWAP-optimized Blue UAS Framework autopilots built in the U.S.A.

From home and business security to retail and government applications, our highly-integrated AI-powered autopilots empower a variety of industries to utilize aerial and ground autonomous navigations systems. We offer plug-and-play computing platforms, integrated autopilots and accessories to accelerate our customers toward autonomy.

Starling 2 Max Product Brief

The Starling 2 Max is an NDAA-compliant development drone supercharged by VOXL SDK specifically designed for outdoor, computer vision-based, long-range dead reckoning with a 500g payload capacity. Powered by VOXL 2, Starling 2 Max weighs 500g and boasts an impressive 55 minutes of autonomous flight time.

Perception

Up to five NDAA-compliant sensors to autonomously navigate GPS-denied outdoors

- Dual AR0144 1MP fisheye CV cameras for Visual Inertial Odometry
- Dual IMX412 12MP cameras (forward and down) for image streaming & capture
- Single FLIR Lepton for thermal image and video capture

Supercharged by VOXL SDK

Open and ready to fly software algorithms that run onboard VOXL 2

- Visual Inertial Odometry to navigate in GPS denied environments
- Multiple image sensors fused for VIO in dynamic environments
- TensorFlow-Lite Neural Networks run object classification, detection & other models
- Open-source software: OpenCV, ROS 2, Docker, upstream PX4

Compute

Open development platform with premier processing power

- Powered by VOXL 2 AI platform for drones
- Integrated Qualcomm QRB5165: 8 cores up to 3.091 GHz, 8GB LPDDR5
- VOXL ESC Mini 4-in-1
- WiFi, Microhard, 5G, Ghost Atto or ELRS (Express LRS) R/C

NDAA-Compliant Robust Design

Designed for outdoor, long-range dead reckoning

- 500g take-off weight
- 322mm SWaP-optimized carbon fiber rotor-base airframe
- 180mm folding propellers
- 55+ minutes flight time
- 500g additional payload capacity

Starling 2 Max
Development Drone