CASIA®

DETECT-AND-AVOID (DAA) SYSTEM

16,000+
TESTED REAL-WORLD
ENCOUNTERS

600TB
RECORDED
FLIGHT DATA

250,000+
SIMULATED ENCOUNTERS
ACROSS VARYING SCENARIOS

SAFETY AT THE CORE

PROTECTING AIRSPACE FOR CREWED AND UNCREWED AIRCRAFT

Iris Automation pioneered the first commercial in-flight collision avoidance safety avionics for UAS. With the introduction of Casia X, an integrated safety system that uses AI to autonomously detect and avoid aircraft across a radial 360 degree field of view, customers can use UAVs for an even greater range of long distance and automated flight use cases, opening tremendous cost savings, and new access to goods and data.

CASIA

x 1

Sensor: 8.9MP
Detection Range: 1200m average, 1900m max
Weight: 482g
Field of View: Horizontal: 80° , Vertical: 50°

CASIA X

x 5

Sensor: 5x 8.9MP
Detection Range: 1200m average, 1900m max
Weight: ~2400g
Field of Regard: Horizontal: 360°, Vertical: 50°

KEY FEATURES

Comprehensive sense and avoid
Full optical computer vision-based detect & avoid with 360° field of regard and 1200m average detection range for non-cooperative aircraft

Proven autonomy
Patented machine learning technology, extensively tested with more than 16,000 real-world encounters, 250,000 visually simulated encounters and millions of simulated detections. Over 600 terabytes of flight data recorded

Compatability
Works with a multitude of industrial UAVs and integrates with popular commercially available autopilots

Completely onboard
Install once, fly forever. Self-contained, rugged, low C-SWAP, ADS-B integrated

Compliance
Designed pursuant to emerging ASTM standards for the performance of UAS and their operational safety (air risk)

BENEFITS

- Safely enable a wide range of advanced operations, including Beyond Visual Line of Sight (BVLOS) flight
- Increase the drone-to-operator ratio
- Reduce exposure to the risks of increasingly crowded airspace navigation
- Reduce or eliminate the need for costly radar surveillance and FCC bandwidth approvals

PLATFORM AGNOSTIC

Multirotor
Hybrid/VTOL
Fixed-wing
Rotorcraft

AUTOPILOT COMPATABILITY

PX4 autopilot
Collins Aerospace
ARDUPILOT
UAV Navigation Cutting-edge Autopilots

GET CASIA