



CASIA[®]

DETECT-AND-AVOID (DAA) SYSTEM



17,000+
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.

C A S I A |



Sensor: 8.9MP
Detection Range: 1338m average, 2096m max
Weight: 482g
Field of View: Horizontal: 80° , Vertical: 50°

C A S I A X



Sensor: 5x 8.9MP
Detection Range: 1126m average, 1635m 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, 1200m average detection range for non-cooperative aircraft, and a 93.2% average detect rate

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

Compatibility

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
COMPATIBILITY

