PilotEye™ A.I. Vision System

Enhancing Awareness with A.I.

Avidyne's PilotEye™ Vision System —powered by Daedalean —is the first AI-based onboard pilot aid system, designed to meet the needs of modern Part 23 light aircraft and piloted, remotely-piloted, and autonomous Advanced Air Mobility (AAM) aircraft including electric, hybrid Vertical Take Off and Landing (eVTOL).

As the name implies, PilotEye serves as an additional set of eyes in the cockpit providing visual detection of airborne hazards, including non-cooperative traffic such as aircraft not equipped with ADS-B, drones, and birds. See and avoid is a key capability for piloting and cooperative traffic equipment is not always operating or installed.

See & Avoid

Visual traffic detection thus still is the pilot's responsibility. With the airspace being increasingly crowded with aircraft and very soon with drones of all sizes, human see and avoid capabilities reach their limit. Neural network-based vision systems can continuously and accurately monitor all a broad field of view

providing the pilot with a never-tired, never-distracted second set of eyes outside.
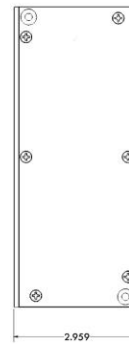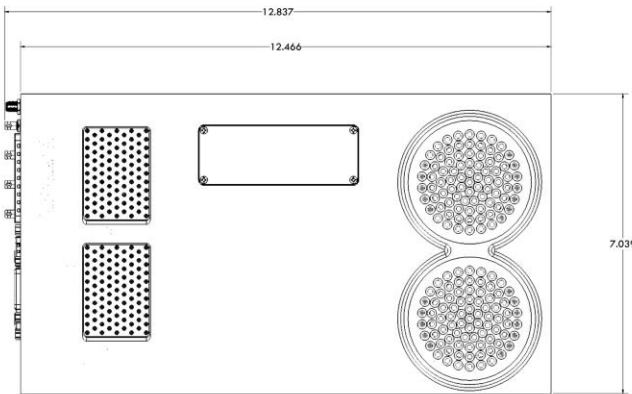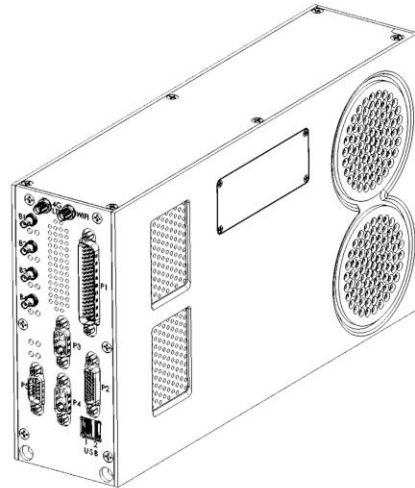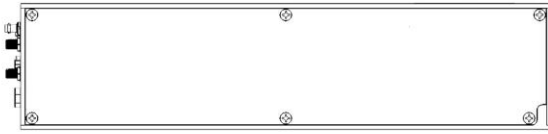
Compact & Powerful

The lightweight and highly-capable PilotEye system, comprised of a processor with up to four visual-spectrum cameras, scans the sky for traffic and other airborne hazards, provides airborne traffic alerting, runway/landing zone guidance, emergency landing zone guidance, ground taxi guidance/traffic detection, and pilotage.

PilotEye can see far more than human eyes, is never distracted, and can be combined with other data sources and merged onto a single intuitive display, providing operators with a dissimilar, redundant guidance source, enabling safe and autonomous operation.

Flexible Display Options

The PilotEye provides Capstone-compliant target information and thumbnail video outputs

QUANTUM

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Quantum Platform - PilotEye Vision System

Specifications

	Processor	Camera (2ea/up to 4ea)
Weight:	8.50lbs	0.80lbs
	(3.85kg)	(0.36kg)
Height:	7.04"	2.66"
	(17.88cm)	(6.75cm)
Width:	2.96"	3.25"
	(7.51cm)	(8.25cm)
Depth:	12.84"	6.00"
	(32.61cm)	(15.24cm)

Compliance

DO-178:   DAL C

DO-254:   DAL B

DO-160:   C2, A, C, E, UG/SET/HP, A RS, F, S, X, S, Z, B, B, B, CC, F, H, B3K3L3, 3N, X, A, C

TSOs: N/A

Power Requirements

Power: 11-33vdc
      2.2A @ 28vdc

Environmental

DO160G qualified
- To 50,000ft
- -20 ° C to +55°C
- Short Term
  -40°C to +70°C

Cooling

No external cooling required

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Avidyne reserves the right to make changes to product specifications and design features without notice.

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