Opgal EVS AP Camera



Camera Applications

Enhanced Vision Camera





EVS AP Camera

Naked Eye View

Opgal's EVS AP camera is a highly sensitive, wide-spectrum infrared camera that provides commercial and business aircraft pilots with clear Head-Up Display (HUD) video images of the runway environment. Day or night, EVS significantly improves flight safety and situational awareness, both in the air and on active taxiways and runways. EVS AP leverages Opgal's proven EVS technology, which was embedded in the first FAA-certified enhanced vision system. As certified technology for landing minima on Category 1 runways, it has been installed in more than 1,500 aircraft to date, by far more than any other EVS technology.





EVS AP Camera Specifications



Camera Applications

Key Features

EVS AP's outstanding natural real world scenes are obtained through a unique combination of capabilities, including:

- Highly sensitive IR sensor with a NETD less than 0.005°C
- Powerful electronic processor
- Clear images of scenes at different extreme temperatures, achieved by very high dynamic range
- Proprietary image-processing software algorithms
- High acquisition rate; 300 frames/second
- Anti-Blooming mechanism cancels interference afflicted by irrelevant sources of light and/or heat

Advantages

The benefits of OPGAL's EVS AP camera are clear:

- Delivers unprecedented situational awareness that enhances safety and leads to fewer diverted, delayed or cancelled flights
- Certified technology for landing minima on Category I runways (100 ft.) and reduced takeoff requirements in commercial EVS systems
- Detection of approach lights and obscure environmental features in low visibility
- Fog penetration and clearer Infrared video images
- Minimal training requirements
- The EVS AP camera works in conjunction with the aircraft Head Up Display (HUD) and Head Down Display
- Suitable for both fixed and rotary wing aircraft

Camera Configuration Options

Features	Description
Spectral Range	1.3μ - 5.5μ
Acquisition Frame Rate	300 frames/second
NETD	< 0.005°C
Dynamic Range	> 60 dB
Dewar Detector Cooler (DDC) Type	InSb 320X240 element FPA
Field of View	32° H X 24°V
Non Uniformity Correction (NUC)	0.03% including bad pixel correction
Output Video	RS-170, digital 14 bits over fiber optics
Power Supply	28VDC, 70W
Environmental Conditions	-40°C - +45°C

Applications

Aviation safety is at the core of Opgal's EVS AP camera, ensuring precision approach and safe landing in reduced visibility conditions, including thick fog, smog, heavy rain and snow. Its operating bandwidth fuses both the near and medium IR spectrum to provide clear images of approach and runway lights, runway threshold, buildings, obstructions and aircraft in close proximity. These images, which are normally undetectable to the pilot's naked eye at night and in bad weather, are easily detected by Opgal's EVS AP camera, providing the visual cues necessary for safe landing.





