



EVS-2000

Enhanced Vision System

Next Generation Technology

- Maximum Flexibility
- Maximum Reliability
- Maximum Performance



Using state-of-the-art, long- and short-wave infrared technology, the EVS-2000 system significantly increases visibility of both the airport landscape and the approach and runway lighting. The EVS-2000 system is of exceptional value in low-visibility conditions — including night, fog, haze, smoke and precipitation — providing the crew with improved situational awareness.

The EVS-2000 system utilizes “uncooled” detector technology, making it extremely compact, lightweight and easy to install. All-solid-state components lead to maintenance-free operation and high reliability. Its patented, dual-sensor system optimizes each infrared image for dramatically enhanced visibility.

SHORT-WAVE INFRARED SENSOR

The approach and runway lights are detected with a short-wave infrared (SWIR) sensor that “extracts” the lights of interest out of the background noise, including sunlit fog. The SWIR sensor detects conventional (incandescent) lights, strobes and LED-based sources.

LONG-WAVE INFRARED SENSOR

The EVS-2000 system’s long-wave infrared (LWIR) sensor penetrates most types of fog, haze, smoke and precipitation. The LWIR creates excellent viewing of the landscape, including runways, taxiways, traffic, obstacles and terrain.

Without Enhanced Vision System



With Enhanced Vision System



SENSOR FUSION

The EVS-2000 processes input from the two separate sensors and fuses the data to create a single image that is superimposed upon the head-up display (HUD) symbology. The fused image can also be viewed on any video-capable head-down display.

The sensor and processor LRUs are fully EMI/RFI protected and power conditioned. The compact size of the EVS-2000 system offers a flexible range of options for installation in the nose or radome area.

EVS-2000 Characteristics

Sensor Technology	Uncooled Solid State — Does Not Require Mechanical Cryogenic Cooler
Size	
Dual Sensor Head	6.0" (152.4mm) W X 5.0" (127mm) H X 8.0" (203mm) L
Fusion/Power Module	2.33" (59.1mm) W X 7.62" (193.5mm) H X 12.675" (321.9mm) D
Weight	
Dual Sensor Head*	7.0 Pounds (3.175kg) *Does not include cable and brackets
Fusion/Power Module*	9.0 Pounds (4.08kg) *Does not include cable and brackets
Power	
Electronics	35 Watts Typical, 90 Watts Peak at 28 VDC
Environmental Conditioning	150 Watts Average, 250 Watts Maximum (with heater)
Resolution	320 X 240 Pixels, 2 Dimensional Staring Array
Aspect Ratio/Fusion Output	4:3, RS-170 Monochrome Television Standard
Field of View (FOV)	
Head-Up Display (HUD)	To Match HUD FOV, Typically 30° X 22.5° Other FOVs Upon Request
Head-Down Display (HDD)	40° X 30° Typical, Special FOVs Upon Request
Reliability	>15,000 Hours
Operating Temperature	-65° to +71° C
Storage Temperature	-65° to +85° C (15 Minute Warm-Up Period)
ARINC-429 Interface	Requires Aircraft Library of Command Responses
Installation Options	Upper Radome/Nose Lower Radome/Nose
Environmental and Software Qualifications	DO-160D, DO-178D, DO-254D



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