



VisionEdge

DVE Sensor



Addressing the serious and potentially life-threatening challenges associated with Degraded Visual Environments (DVE), Telephonics' VisionEdge™ provides military aviators with a real-time, 3D visual display, enhancing their ability to maneuver through adverse weather conditions, hard-to-detect wires and other flight path obstacles.

Enabling DVE Mission Success

As the need to elevate military flight safety continues to grow, so does the need for an effective DVE sensor. VisionEdge solves this longstanding problem encountered by countless military pilots by providing real-time imaging of the aircraft's forward viewing area while utilizing a lower GHz frequency that sees through sand, dust and other adverse weather conditions. By using azimuth, range and elevation images, air crews are able to identify and avoid objects in their flight path or launch/recovery area to safely complete the mission when DVE conditions are present. With Telephonics' VisionEdge system, flight obstacles and dangerous weather conditions become an advantage for the pilot, enabling them to effectively and safely fly when the enemy is unable, minimizing risks and increasing warfighter capabilities.



VisionEdge shows objects in the aircraft's flight path during brownout conditions via a 3D visual display.

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Technical Specifications

Imaging Approach	3D
Threshold Performance	Terrain and flight obstacles, collision avoidance
Size (L x W x H in.)	Antenna: 24 x 7 x 7 Processor: 12 x 8 x 8
System Weight	Less than 55 lb.
Power (DC, V, A)	Antenna: +9 VDC @ 5A/-9 VDC @ 1 A Processor: +28 VDC @ 15 A



Intelligent Design

Understanding the critical importance of maximizing performance, yet providing low-power, small-size and lightweight sensor solutions, Telephonics' engineers designed VisionEdge as a two component system which includes a small millimeter wave antenna aperture and signal processor. The antenna aperture is a single array with no moving parts that provides high reliability over the life of the system, as well as easy integration into a wide variety of platforms.

The VisionEdge signal processor interprets data received from the antenna aperture, converting information into images displayed on either a heads-up or heads-down display unit. By interfacing with the existing onboard aircraft computer, Telephonics' signal processor combines real-time imaging with symbology and other sensor data, creating a greatly enhanced operating picture for aviators.



Rotorwash kicks up a dust cloud resulting in brownout conditions.

Telephonics' Proven Experience

Telephonics leveraged extensive airborne radar system experience into the development of VisionEdge. With a unique understanding of end-users' needs garnered over decades of proven field deployment, Telephonics developed the VisionEdge system to elevate warfighter capabilities, ensure the safety of military personnel and increase mission success.

For additional information, contact Telephonics at 631.755.7000 or visit www.telephonics.com.