

# HELMET INTEGRATED CUEING SYSTEM

**#Avionics** 

VISOR PROJECTED, SEE-THROUGH SYSTEM WITH NIGHT VISION CAPABILITY 40 DEGREES FIELD OF VIEW HYBRID (INERTIAL AND OPTICAL) HEAD TRACKING NATIONAL PRODUCTION







AVCI Helmet Integrated Cueing System (HICS) is a visor- projected system. It is designed for helicopter platforms to improve the pilot's situational awareness and increase the capabilities of the pilot and aerial vehicle with its night vision, video, symbology, accurate head tracking.

- Night vision, IR video, navigation and weapon symbology
- Generation of head tracking information for accurate line of sight cueing and targeting
- Personalized inner liner for pilot
- Protection of pilot's head and face against impact and sharp objects
- Field of view: 40 degrees, provides a binocular view and supports depth perception by increasing the pilot's environmental awareness.
- Modular night vision: AVCI has a well balanced night vision modules via prism optics unlike standard night vision goggles
- National production: AVCI-2 display module was developed entirely originally by Turkish engineers

## Subassemblies

- Headgear Unit (Assembly of basic helmet, display module, head tracking module, connection and battery module)
- Electronics Unit (Symbology generation, video processing and head tracking algorithms)
- Cockpit Camera Modules (For head tracking)
- Control Panel (User interface on the platform for adjustments and selections)

#### **Technical Features**

Basic helmet is composed of lightweight composite materials and individually manufactured inner liner specific to the user.

Video, navigation, weapon and platform symbologies and external video (i.e. IR camera, missile seeker) are projected on pilot's visor. The symbology of the system can be designed according to the platform and user specifications.

Hybrid Head Tracking system, which uses both optical and inertial tracking methods, provides easy cockpit installation.

# **Electronic Unit**

- Custom ATR Size
- Symbology Generation Capability
- Video and Symbology Overlay
- 2 x Analog Video Inputs
- 1 x Analog Video Recording Output
- Redundant MIL-STD-1553 Interface
- Ethernet and Serial Communication Interfaces (RS-232/RS-422/RS-485)
- 28 VDC Operating Power
- MIL-STD-704 Compliant
- MIL-STD-810 Compliant
- MIL-STD-461 Compliant

## Headgear

- Personalized, Comfortable and Stable Fit for Pilot's Head
- Hybrid Head Tracking System
- Connection and Battery Module
- Night Vision
- 40° Circular FOV
- Impact and Acoustic Protection
- Clear and Dark Visors



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specifications are subject to change without any notice.  $\mid$  All tolerances are within  $\pm 10\%$