



HUD

Digital Head-Up Display, BuiltSAFE™

Save space and decrease integration time with low-profile technology

- 1080p video with high contrast ratio and >24° TFOV
- Compact design supports large cockpit displays
- DAL-A certifiable
- High-resolution symbology via Digital Light Engine (DLE)
- Rugged, MIL-STD 810G with 8,000 hrs MTBF
- Fewer components to lower lifecycle and maintenance costs



Head-Up Display (HUD)

Mercury's Head-Up Display (HUD) is a DAL-A certifiable, customizable electro-optical augmented display device that supports modern display technology and allows pilots to see real-time flight and weapon delivery data, with symbology in 1080p, without taking their eyes off the action outside. The HUD's low-profile design minimizes pilot discomfort, enhances situational awareness and maximizes the field of view.

HIGHLIGHTS

- Occupy less vertical space with a low-profile design, bringing large area display integration closer to eye level and minimizing pilot discomfort
- Display HUD symbology from digital and analog inputs to support next-generation enhanced-vision capabilities, including FLIR
- Generate sun-readable and night vision high-resolution symbology with digital micromirror device (DMD)-based Digital Light Engine (DLE) technology
- Lower lifecycle maintenance and sustainment costs with fewer components and maximized MTBF
- Record live video overlaid with symbology for debriefing and training purposes with a non-obstructive video camera assembly
- Fully customizable to any aircraft to maximize pilot field of view (FOV) and available as a form-fit function and interface replacement for existing HUD systems
- Reconfigurable and flexible FPGA IP that integrates any aircraft interface, including digital (ARINC 818) and analog
- Available in both vertical and horizontal configurations, designed to fit any cockpit shape

CONTACT US

DESIGN WITH BUILTSAFE TECHNOLOGIES—TESTED, CERTIFIED AND FIELDIED OVER THREE DECADES

The HUD is architected using Mercury’s proven BuiltSAFE commercial-off-the-shelf (COTS) elements and artifacts for flawless performance and ease of systems integration. Modular and reusable, BuiltSAFE technologies maximize interoperability and speed technology refresh by minimizing the need for recertification.

TECHNICAL SPECIFICATIONS

Operational Modes

Day and night modes
 Automatic brightness control
 Depressible reticle stand-by sight (SBS) option

High Brightness

Capable of >2200 fL
 Contrast ratio >1.25 in the presence of 10,000 fL background lighting

Luminance

Adjustable from 0.03 to maximum brightness

High-Resolution Light Engine

Can project up to 1080p full high-definition (HD) image

Total Field of View (TFOV)

>24 degrees and a binocular instantaneous field of view (IFOV) of 15 degrees vertical and 15.5 horizontal
 Large eye-motion box

BuiltSAFE Proven Elements

DO-254C hardware artifacts
 DO-178C software artifacts
 Design and information assurance
 Self-monitoring and BIT capability

Rugged

MIL-STD-461G
 MIL-STD-704
 8,000 hours MTBF
 34,500 hours for recording camera
 Operating Temperature: -40°C to +85°C
 Conduction and convection cooled



Corporate Headquarters

50 Minuteman Road
 Andover, MA 01810 USA
 +1 978.967.1401 tel
 +1 866.627.6951 tel
 +1 978.256.3599 fax

**International Headquarters
 Mercury International**

Avenue Eugène-Lance, 38
 PO Box 584
 CH-1212 Grand-Lancy 1
 Geneva, Switzerland
 +41 22 884 51 00 tel

Learn more

Visit: mrcy.com/displays

Contact: mission@mrcy.com



The Mercury Systems logo and the following are trademarks or registered trademarks of Mercury Systems, Inc.: Mercury Systems, Innovation That Matters, and BuiltSAFE. Other marks used herein may be trademarks or registered trademarks of their respective holders. Mercury believes this information is accurate as of its publication date and is not responsible for any inadvertent errors. The information contained herein is subject to change without notice

