AFD-3210 ADAPTIVE FLIGHT DISPLAY

GREATER FUNCTIONALITY FOR IMPROVED MISSION PERFORMANCE

Consuming less power than traditional display installations

The Collins AFD-3210 adaptive flight display (AFD) was developed from a family of commercial off-the-shelf (COTS), resistive touchscreen liquid crystal displays (LCDs) with multi-touch gesture support. These displays can eliminate dedicated control panels while increasing viewing area.

The night vision (NVIS) compatible AFD-3210 is available for both fixed-and rotary-wing platforms. It offers the option for DZUS-rail mounting or other mounting configurations, standalone or outboard.

Our AFDs expand the capabilities of current and future aircraft, enabling:

- Radio management
- Checklist automation
- Flight planning tasks
- Flight management system (FMS) performance and Take-Off and Landing Data (TOLD)
- Navigation charts
- Graphical weather
- CPDLC (FANS, ATN)
- Synoptics
- SATCOM and AOC
- Maintenance and monitoring
- Crew alerting and troubleshooting

The AFD-3210 provides the latest LCD technology with a power-efficient, 800-by-400 resolution, 103dpi and fully saturated colors in day and NVG modes.

Touchscreen is fault tolerant, glove compatible and offers resistive multi-touch.

Optimized touch-activation force eliminates unintended activations, which improves mission performance and reduces pilot workload.

Can eliminate dedicated control panels.

Supports integrated or stand-alone installations.

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EXCELLING IN THE NIGHT

The AFD-3210 was designed as a flexible, NVIS-compatible touchscreen display to be used either as a flight display in the instrument panel or in lower consoles as a system controller. It accommodates retrofit applications and fits within the typical DZUS rail width (5.75 inches) used in many aircraft. It has a large, 9-inch diagonal viewing area to display a variety of data.

The display’s high-performance, low-power system processor combines with a variety of input/output signals and a GE5 2D graphics engine, resulting in a high-integrity solution. Its components support up to Design Assurance Level A (DAL A) display formats, including DO-178C and DO-254 artifacts, as well as ARINC 661 graphics protocol. This graphics protocol enables graphics to be drawn to the display from the software local to the display, as well as from remote equipment.

The AFD-3210 features a resistive touchscreen technology compatible with any type of flight glove. The light-touch technology uses pressure on the display to sense position and minimize false activations, a common concern in cockpit environments.

FUTURE FOCUSED FROM A PROVEN LEGACY

The adaptive flight display family, which includes the AFD-3200 and AFD-3210, uses the proven implementation and touchscreen technologies of Collins Pro Line Fusion® integrated avionics system displays. It leverages the same family of networking, graphics and controllers as our proven Flight2™ integrated avionics system and Common Avionics Architecture System (CAAS) product lines. As a result, our AFDs deliver interoperability and robust, trustworthy performance.

SPECIALIFICATIONS

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<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Size</td>
<td>5.75” (w) x 9.76” (h) x 2.2” (d)</td>
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<tr>
<td>Weight</td>
<td>4.6 lbs.</td>
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<tr>
<td>Power</td>
<td>28 VDC, &lt;35 W</td>
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<td>Input/output</td>
<td>ARINC-429, RS-232, Ethernet, ARINC-708, CAN Bus and Ground/Open discretes</td>
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<td>Viewing</td>
<td>Envelope circular: +/-55 horizontal and vertical; can be used in portrait and landscape orientation</td>
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<tr>
<td>Touchscreen</td>
<td>Resistive (suitable for all gloves)</td>
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<td>NVIS radiance</td>
<td>In accordance with Table III of MIL-STD-3009 for Type I, Class B, electronic and electro-optical displays (multi-color)</td>
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<td>Design assurance</td>
<td>DO-254 and DO-178C DAL A</td>
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<td>Mean time between failures (MTBF)</td>
<td>&gt;9,000 hours</td>
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ADDITIONAL KEY FEATURES AND BENEFITS

- Design based on proven touchscreen technologies of Pro Line Fusion displays, flying worldwide
- Leverages the same display components as other proven Collins Aerospace integrated flight decks, including networking, graphics and controllers
- Flexible design allowing for growth and incorporation of new technologies
- Rugged, lightweight design delivers reliable performance in extreme environments
- Can host user-created applications; or our ARINC 661 Graphics Server (AGS) can host enabling client applications connected via Ethernet to draw to the AFD-3210 display