# ScioTeq

Advanced Visualization

# FDU-3068

## 10.4" (6" x 8")
## Flight Display Unit for civil aviation



The FDU-3068's proprietary Active Matrix Liquid Crystal Display and LED backlight technology deliver a visual performance second to none: true 8-bit color depth with high contrast ratio and superior color stability, very wide viewing angles and superior brightness modes.

This allows the display to be mounted in portrait or landscape both vertically in front of the pilots and tilted horizontally in the pedestal, assuring perfect cross-cockpit vision.

And there is even more: the optical quality is guaranteed over the complete operating temperature range and lifetime of the display, thanks to ScioTeq's proprietary control mechanisms. As an option, the light can be collimated to reduce reflections on the windshield or canopy.

The software and firmware of the FDU-3068 are developed according to DO-178 and DO-254, capable of supporting DAL-A functions.

**Main features:**

• Best-in-class true 8-bit AMLCD for superior color rendering and best-in-class imagery

• Very wide viewing angles – ideal for cross-cockpit viewability

• Brightness up to 150fL

• Guaranteed brightness and color range over the operating temperature of the display and over its lifetime

• Low weight <2 kg / 4.4 lbs

• 2 video inputs standard

• Several control options (RS-422,ARINC-429, discretes)

• Continuous operations at up to 55C without external cooling

• Quiet by design, thanks to its fan-less architecture

# Technical specifications

| | FDU-3068 |
|---|---|
| **Electro-optical** | |
| Panel type | Active matrix LCD (normally black) |
| Panel active area | 10.4" diagonal (6" x 8") |
| Panel resolution | 1024 x 768 |
| Color depth | True 8-bit – 16,777,216 colors and 256 grayscales |
| Viewing angle | • H: +/-80°<br>• V: +/-80°<br>Can be tailored to program requirements, such as the addition of specific collimation to reduce canopy reflections, etc. |
| Backlight | LED backlight |
| Luminance | 0.1 up to 150fL<br>Luminance and color stabilized over the life time and the complete temperature range of the display |
| Sunlight readability | Contrast ratio >14:1 @ 10,000 fC |
| **Interfaces** | |
| Video inputs [1] | Two video inputs as default<br>DVI or A818 or SMPTE-292 (HD-SDI) (other combinations on request) (1) |
| Control interfaces [1] | • Video source/mode selection and BIT data retrieval via either RS-422 or A429<br>• Discretes for display configuration, lighting mode selection, etc.<br>• ARINC 429 control<br>• RS-232 maintenance interface |
| **Controls** | |
| Brightness control | ALS sensors, bezel control or remote |
| Bezel controls [1] | Available with custom bezels |
| Touch screen | Multi-touch capability through PCAP with built-in mechanisms for certifiable touch interface (on request) |
| **General specifications** | |
| Power supply | 28VDC, DO-160G |
| Power consumption | <20W @ 150fL (20C ambient) |
| Weight | <2 kg / 4.4 lbs |
| Cooling | Passive cooling (no requirement for forced external cooling) – fan-less design |
| Orientation | Landscape or Portrait |
| Dimensions (WxHxD) [1] | 256. 5mm (Width) x 199mm (Height) x 46 mm (Depth excl. connector flange) |
| Software | developed to RTCA/DO-178, capable of supporting DAL-A functions |
| Hardware | developed to RTCA/DO-254, capable of supporting DAL-A functions |
| **Environmental conditions** | |
| Compliance | DO-160G |
| High temperature | +55C operational / +70C short-time / +85C ground survival |
| Low temperature | -15C operational / -40C short-time / -55C ground survival |
| Altitude | 50,000 ft |

[1] Please contact ScioTeq for other possible options

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*The information and data given are typical for the equipment described. However any individual item is subject to change without any notice.*

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