



**4" S-MFCD**  
**Smart**  
**Multi-Function**  
**Color Display**

## 4" Smart Multi Function Color Display

*Affordable Mini-Upgrade Solution*

The 4" Smart Multi Function Color Display (MFCD) is a combined of an advanced 4"x4" color Active Matrix Liquid Crystal Display (AMLCD) display with an internal processor. The embedded processor can generate graphics; perform avionics computation and mission management handling.

The smart system is designed for use as an avionics capability enhancement, allowing hosting complete applications, such as:

- Situational Awareness display
- Digital Map
- Data Link
- Primary Flight Display (PFD)
- New smart weapon interface and control
- Etc.

The smart display can provide a modern replacement to existing cockpit instruments (navigation, primary flight, engine), as well as expanding the existing avionics capabilities to provide new features and functions, without modifying the existing avionics hardware and software.

The 4" Smart display also allows the presentation of external video, with graphics overlays generated internally. Interfaces to MIL-STD-1553 buses are available, as well as other optional aircraft



### ***Astronautics Smart 4" MFCD features include:***

- Smart Display with Internal processing and graphics generation
- Active Matrix Color Liquid Crystal Display (AMLCD)
- Sunlight readable
- Selectable to function as EICAS, Video, Primary Flight, or Navigation
- 20 Multifunction keys on a Bezel
- Modular, rugged construction
- Brightness control
- Build In Test (BIT)
- Accepts RGB & Monochrome video
- 256 Shades Of Gray

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## 4" Smart Multi Function Color Display (MFCD)

<b>OPTICAL SPECIFICATIONS</b>	
Useable Display Area	4.0" x 4.0"
Pixel Resolution	600 x 600
Display Luminance	.05 fL to 200 fL
Contrast Ratio	>5:1 in 10,000 Foot Candle Ambient
Viewing Angle	>±60° H, +45° V, -15° V
Colors	256 Shades of Gray

<b>INTERFACE SPECIFICATIONS</b>	
Typical Interfaces Available	RS-170 Monochrome or RS-170A RGB MIL-STD-1553 bus (x2)  ARINC-429 Channels (2 Rx, 1 Tx) - Optional Discrete, Analog, ARINC-429, Discrete Optional

<b>MECHANICAL SPECIFICATIONS</b>	
Envelope	5.0" x 5.0" x 10.0" (Chassis) 5.62" x 5.62" (Bezel)
Weight	Under 10 Pounds
Rocker & Bezel Switches	Available on bezel. 20 soft switches, rockers for brightness, contrast, symbol brightness

<b>POWER SPECIFICATIONS</b>	
Power	28 V dc Power per MIL-STD-704 60 Watts Power Consumption (Average) (Without heaters)

<b>RELIABILITY/ MAINTAINABILITY</b>	
Built-in Test (BIT)	Automatic Fault Monitoring
Reliability	10,000 hours MTBF
Maintainability	30 Min. MTTR

<b>ENVIRONMENTAL SPECIFICATIONS</b>	
Temperature	-40°C to +55°C Operating (Continuous) +71°C Intermittent Operation -55° to +85° Storage
EMI/EMC	Per MIL-STD-461/462
Altitude	Up to 50,000 feet
Vibration	5g, 50-2000Hz
Shock	15g, 11ms
Humidity	Up to 100% Condensing

FOR MORE INFORMATION ON THIS OR ANY OF OUR OTHER PRODUCTS/SYSTEMS PLEASE CONTACT:  
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