

# LC-3ATI

Active Matrix Liquid Crystal Full Color  
Analog Display Module (Without Backlight)



## PRODUCT HIGHLIGHTS

- 240 x 240 RGWB (quad pixel structure)
- Light weight
- Wide temperature range (-15 to 70 C operating)
- Wide angle viewing
- Fully compatible with, and exceeds Toshiba's TFD32W02 3ATI module.

## FEATURES AND BENEFITS

- Extremely bright white for better contrast
- Designed for use with high-intensity backlights
- Analog gray level capability
- High contrast for sunlight viewability
- Extremely rugged design

## A high-performance avionics 3ATI display.

Planar's 3ATI family is a quad pixel (RGWB) 240 x 240 active matrix liquid crystal display (AMLCD) designed for avionics applications. Developed to meet demanding ambient lighting conditions, extreme temperature range, and ruggedization requirements, this full color display is ideal for flight deck instruments in any aircraft, which includes flight path and engine information centers, attitude direction indicators (ADI), horizontal situation indicator (HSI), and terrain collision avoidance systems (TCAS). The quad pixel design results in the highest visual performance 3ATI display in the market.

The LC-3ATI combines Planar's proven understanding of our avionics customers' application requirements with an established expertise in high-performance color displays. The module is compatible with, and superior to, Toshiba's obsolete TFD32W02 3ATI. Planar can help customize a solution or put you in contact with a partner that provides complete instruments.

# LC240.240.24-3ATI

**EXPERIENCED AVIONICS SUPPLIER.** As a leading provider of high-performance display systems, Planar has over seventeen years of experience providing solutions to meet the demanding requirements of the commercial avionics market. This understanding of the unique demands of sun-light-readable and flight deck applications is demonstrated in the LC-3ATI.

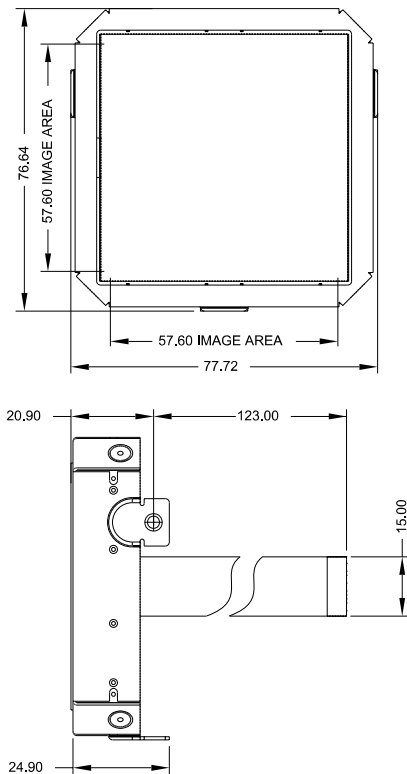
## AVIONICS DISPLAY FEATURES.

There is no environment that poses more challenges to a flat panel display than a cockpit. The wide range of ambient lighting condition – from dark night to bright sunlight streaming through the cockpit directly onto the display, the mechanical restraints, and the rugged specifications are extreme and unique. The LC-3ATI addresses these needs with proven Planar quality.

## SUPERIOR TECHNICAL SUPPORT AND CUSTOMER SERVICE.

Planar's international team of application engineers bring a level of expertise and professionalism, to assist you throughout your design cycle, and to help you optimize the visual performance of your end product.

## DIMENSIONS (all dimensions in millimeters)



For more information, visit our website at [www.planar.com](http://www.planar.com)

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## TECHNICAL SPECIFICATIONS

<b>Display Technology</b>	Active matrix liquid crystal display (AMLCD)
<b>Color</b>	Full color. Red, green, white, and blue quad sub-pixels.
<b>Viewing Angle (10:1 contrast)</b>	Hor: $\pm 45^\circ$ min, Vert: $+40^\circ/-25^\circ$ min at 25 °C, 5V drive
<b>Response Time</b>	50 ms max at 25°C
<b>Resolution</b>	240 x 240 color pixels
<b>Pixel Pitch</b>	0.24 x 0.24 mm
<b>Display Active Area (W x H)</b>	57.6 mm x 57.6 mm
<b>Weight</b>	120 g max, 99 g typical
<b>Transmission</b>	6.5% min at 25 °C
<b>Specular Reflectance</b>	1.0% max
<b>Supply Voltages</b>	+5 Vdc, +13 Vdc, +22 Vdc
<b>Power Consumption</b>	200 mW typical
<b>Temperature</b>	Operating: -15 to +70 °C Powered: -40 to +85 °C Storage: -55 to +90 °C
<b>Humidity (operating, non-condensing)</b>	95%
<b>Altitude</b>	-15,000 to +55,000 feet ( 16,764 meters)
<b>Shock</b>	6 g, 11 ms (3 on each of 6 surfaces)
<b>Vibration</b>	0.03 g <sup>2</sup> /Hz 10-30 Hz, 0.002 g <sup>2</sup> /Hz 75-1000 Hz
<b>Analog Signals</b>	Data: 1.0 to 11.0 V RGWB
<b>Digital Signals</b>	Control: CMOS/TTL logic level
<b>Connector</b>	Two 14-contact flex cables, 1 mm pitch, 123 mm long.
<b>Qualifications</b>	DO-160D
<b>Backlight</b>	Backlight not included

## SUPPORT AND SERVICE

Planar is an international company with global manufacturing sites, sales network, and full application engineering support and service in the U.S. and Europe.

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