



19.6" AMLCD

### Product Description

PDT's rugged AMLCD displays are high-performance color active matrix liquid crystal displays for avionics simulation applications and were developed specifically for use in prototype JSF simulator cockpits. RS170-type video interface can be sync-on-green or separate/composite video sync. These displays feature:

- § Complete remote adjustment, calibration and diagnostics using a standard PC.
- § High-brightness, wide dimming range backlights creating a display capable of being viewed under direct sunlight conditions down to NVG requirements.
- § A wide variety of functional controls and form-factors can be specified as dictated by actual flight displays.
- § Built for durability and low life-span cost in simulator applications only, including full motion platforms. Cannot be used in aircraft.

## Ruggedized Flat Panels



F-35 JSF



12.1" AMLCD

## Ruggedized AMLCDs

### Performance Specifications

Resolution: from 512 x 512 to 1600 x 1200  
 Total lines per frame: 537  
 Total pixels per line: 640  
 Active lines per frame: 512  
 Active pixels per line: 512  
 Frames per second: 60  
 Fields per frame: 1  
 Pixel clock: 20.6208 MHz, 48.4947 nsec

Line -  
 Length: 640 pix els, 31.0366 msec  
 Frequency: 32.22 KHz, 31.0366 msec  
 Horizontal Sync: 64 pix els, 3.10366 msec  
 Horizontal Back porch: 56 pix els, 2.7157 msec  
 Horizontal Active: 512 pix els, 24.8293 msec  
 Horizontal Front porch: 7.99999 pix els, 387.957 nsec

Field -  
 Duration: 343680 pix els, 537 lines, 16.6667 msec  
 Vertical Sync: 1920 pix els, 3 lines, 93.1099 msec  
 Vertical Sync Pulse: 1984 pix els, 3.1 lines, 96.2135 msec  
 Vertical Back Porch: 121160 pix els, 19 lines, 589.696 msec  
 Vertical Active: 327680 pix els, 512 lines, 15.8908 msec  
 Vertical Front porch: 1920 pix els, 3 lines, 93.1099 msec

### Operating Specifications

Power Requirement: 28 VDC, 112 w atts maximum consumption, 50 w atts nominal  
 Temperature: 0 ° to 40° C operating, -20° to 70° C non-oper ating  
 Altitude: 0 to 10,000 ft oper ating, 0 to 40,000 ft non-oper ating  
 Relative Humidity: up to 90% (non-condensing) oper ating, up to 95% (non-condensing) non-oper ating

### Mechanical Specifications

Enclosure Height: From 4"  
 Enclosure Width: From 4"  
 Enclosure Depth: 2"  
 Enclosure Material: Black anodized aluminum  
 Cooling: Forced air, intake fan, rear vents  
 I/O: Video - R, G, B (75 Ohm BNC)  
 Horizontal/Vertical Sync - (75 Ohm BNC)  
 Dim Control I/O: 9-pin Male DB9  
 Display Control I/O: 9-pin Female DB9  
 Bezel Control I/O: 37-pin Male DB37  
 Power: CPC 4-pin, Male

### Remote Adjustments

- Luminance limits

### Warranty

These units are offered with the standard Precision Display Technologies (PDT) warranty of one (1) year on parts and labor for design and/or manufacturing defects in PDT supplied components only (original manufacturers' warranties apply to all CRTs, HUD optics, AMLCDs and bezels). Warranty specifically does not include customer-induced failures or damage caused by shippers.

