



### Product Description

The simulated F-18 E/F MDI is a high-performance 5-inch x 5-inch color, raster Multi-Purpose Display Indicator for avionics simulation applications. RS170-type video interface can be sync-on-green or separate/composite video sync. This display features:

- § Complete remote adjustment, calibration and diagnostics using a standard PC.
- § High-brightness, fine dot pitch color CRT. Available with NVIS compatibility.
- § Precision scan electronics and wide bandwidth video.
- § Same functional controls and form-factor as the flight display, plus contrast enhancement filter for improved readability.
- § Built for durability and low life-span cost in simulator applications only, including full motion platforms. Cannot be used in aircraft.

### Simulated F/A-18 E/F MDI Multi-Purpose Display Indicator



F/A-18 E/F Cockpit



MDI Rear View

### Simulated F-18 E/F MDI Multi-Purpose Display Indicator

#### Performance Specifications

Resolution: 640 x 480 to 1280 x 1024 multi-sync  
 Vertical Frequency: 30-80Hz  
 Horizontal Frequency: 30-76kHz  
 Video Bandwidth: 100MHz, -3db  
 Input Impedance: 75 Ohms  
 Connectors: BNC type (Video & Sync); 9-pin DB-9 (Monitor Control I/O); 37-pin DB-37 bezel control I/O; 3-prong IEC Power Cord  
 Synchronization: Composite Video (R, G, B) with sync on G or separate composite sync (Optional Horizontal/Vertical sync)  
 Frequency Detect: Automatic upon change of Video input  
 Brightness: 150ft-L screen center, without filter  
 Video Signal Sensitivity: 0.7 volts peak-peak (1.0 volts peak-peak including composite sync). Input circuits are designed to withstand up to 5 volts peak-peak without damage  
 Horizontal Linearity: 2% of picture width, (Ball chart method)  
 Vertical Linearity: 2% of picture height, (Ball chart method)  
 Geometric Distortion: 2% vertical, 3% horizontal.  
 Size Changes: 2% maximum  
 Position Changes: 2% maximum  
 Display Jitter: 0.005 inch peak-peak  
 Phosphor Protect: Automatically blanks screen if missing sweep  
 Overscan: Horizontal overscan is standard allowing 1:1 display of 4:3 video.  
 Degaussing: Automatic upon power-up

#### Operating Specifications

Power Requirement: 110/220 V AC, 47-400 Hz;  
 110 watts maximum consumption, 70 watts nominal  
 Temperature: 0 to 40 C operating, -20 to 70 C non-operating  
 Altitude: 0 to 10,000 ft operating, 0 to 40,000 ft non-operating  
 Relative Humidity: Up to 90% (non-condensing) operating, up to 95% (non-condensing) non-operating

#### Mechanical Specifications

Enclosure Height: 7.20" exclusive of mounting foot  
 Enclosure Width: 6.75"  
 Enclosure Depth: 16" (from front flat surface of bezel)  
 Enclosure Material: Aluminum  
 Cooling: Forced air, rear intake fan  
 I/O: Video - R, G, B (75 Ohm BNC)  
 Horizontal/Vertical Sync - (75 Ohm BNC). 110/220 V AC power - 3-prong IEC power cord  
 Monitor Control I/O: 9-pin Male DB9  
 Bezel Control I/O: 37-pin Male DB37

#### CRT Specifications

CRT Type: Precision in-line gun avionics type  
 Screen Type: High contrast, black matrix  
 Deflection Method: Magnetic  
 Convergence Method: Magnetic: mechanical, static or dynamic  
 Focusing Method: Electrostatic  
 Phosphor Dot Pitch: 0.31 mm  
 Useable Display Area: 4.93" x 4.97"  
 Spot Size: 0.020" maximum @ 50 ft-L  
 Phosphor Type: P22 (medium short persistence)  
 Light Transmittance: 30% (filter)  
 Linearity: +/- 2% of picture height over full screen  
 Line Width: @ 150 microAmp, 0.020" center, 0.024" corner  
 Luminance: @ 150 microAmp, White 150 ft-L  
 Convergence: Within 0.2 mm center, 0.3 mm corner

#### Remote Adjustments

- RGB gain and cutoff - Contrast
- Brightness - Horizontal size and center
- Vertical size and center - Horizontal linearity
- E-W pincushion - Horizontal trapezoidal
- Horizontal parallelogram - Horizontal bow
- Horizontal s-correction - Focus
- Dynamic convergence

#### 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 warranty applies to all HUD optics, and CRTs), and specifically does not include customer-induced failures or damage caused by shippers.