

### Features

- ⊕ High Brightness
- ⊕ EMI Filter on Faceplate
- ⊕ Rugged Design
- ⊕ Wide Bandwidth (High Resolution)
- ⊕ Extended Temperature Range
- ⊕ Extended Altitude Capability

**GENERAL DESCRIPTION:** This monochrome video monitor is designed to be used in the very harsh environment of a fighter or trainer cockpit. Now in production, this monitor was tested and qualified for use in rugged environments, such as off-road or tracked vehicles and moderate/high performance jet or turboprop aircraft (trainers, helicopters, business and transport aircraft, etc.). Available Options (consult factory): Mechanical Configurations (i.e. connector location, mounting style, etc.), Control type, and Qualifications.



### GENERAL

**CRT Size & Type:** 9 inches (diagonal), P104 phosphors (others available)  
**Construction Type:** Full metal case, with ruggedized mounting provisions  
**Power Required:** 28 VDC (+4, -8VDC) unregulated  
**Power Consumption:** 50 Watts (nominal) at 28 VDC  
**Dimensions:** 8.5"(W) x 8.0"(H) X 15.0" (D) excluding connectors, knobs and buttons  
**Weight:** Less than 30 pounds  
**Connectors:** Power: PT02E-10-6P type  
 Signal: TRB triax or BNC coax type (two, loop thru)

### FUNCTIONAL

**Local Controls:** Brightness, and Contrast (Front Panel)  
**Mounting Provisions:** Rear dagger pin receptacles, front guide pin, and front hold down screws.

### VIDEO

**Scan Rate:** Horizontal: 15.75 Khz  $\pm 1\%$  (RS-170 standard, RS-343 or CCIR optional) Vertical: 60 hz  $\pm 1\%$  (50 hz optional)  
**Video Bandwidth:** 40 MHz  
**Aspect Ratio:** 4:3  
**Horiz. Resolution:** More than 800 TV lines  
**Brightness:** 350 Foot-Lamberts at face, minimum. A Contrast Enhancing Filter (CEF) bonded to the CRT face is used in this configuration, and incorporates an EMI shielding coating.  
**Linearity & Geometry:** 2% of picture height; 10 gray scales or better  
**Size Stability:** Less than  $\pm 1\%$   
**Input:** 1.0 Vp-p, nominal, negative sync, 75 ohm terminated  
**Level Control:** Automatic gain control (AGC)

**ENVIRONMENTAL:** The following tests have been completed successfully; copy of test report available on request. It is our opinion that in many cases the unit could be tested successfully to higher test levels than below. (Tested per the requirements of RTCA DO-160C).

|                             | Storage                                     | Operating   |
|-----------------------------|---|---|
| <b>Temperature:</b>         | - 40° C to +80° C                           | -15° C to +55° C<br>(+70° C for 30 minutes)                                       |
| <b>Altitude:</b>            | -15,000 to 45,000 feet                      | Sea level to 25,000 feet  |
| <b>Rapid Decompression:</b> | 23,000 to 43,000 feet<br>10 sec (operating) |   |
| <b>Humidity:</b>            | 95% (50° C to 38° C)                        | 5% to 95% relative humidity<br>(non-condensing)                                   |
| <b>Vibration:</b>           | N/A   | 1 G RMS Random 15-2000 Hz   |
| <b>Shock:</b>               | N/A   | 9 G's, 11ms half-sine,<br>20 G's, 11ms crash safety                               |
| <b>Acceleration:</b>        | N/A   | +Y (Vertical Up Axis: 8 G's)<br>all other axes: 6 G's<br>Crash Safety: 12 G's FWD |

**Radio Frequency Interference/Electromagnetic Interference:** Per RTCA DO-160C, as appropriate for aircraft cockpit mounted equipment, using the following equipment categories:

| Section | Category |
|---------|----------|
| 16-18   | B        |
| 19, 21  | A        |
| 22      | T        |
| 22      | K        |

Specifications subject to change without notice.

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