EFI-650
Electronic flight instrument

Half the weight, twice the reliability.

Acron Aviation' EFI-650 Electronic Flight Instrument System (EFIS) display provides a plug-and-play replacement for the Cathode Ray Tube (CRT) displays for business and regional aircraft operators.

Regional and business jet operators are reducing operating costs and improving the flight experience with the EFI-650 display. This plug-and-play replacement addresses the aging CRT obsolescence, while offering huge gains in reliability, reduces weight, and lowers power consumption over legacy systems.

The EFI-650's mean-time between failures (MTBF) is greater than 25,000 hours which is a 50% improvement over CRTs. This reliability reduces operational disruptions and the risk of AOGs, as well as the need to provision and hold more spares. The LCD display is 50% lighter than standard CRTs, therefore reducing operational costs and offering exceptional clarity and brightness to the pilots.

- Drop-in replacement for the Honeywell ED-800 CRT display
- No change to cockpit panel or LRU mounting provisions
- No change to mating connector
- No change to aircraft wiring or electrical interfaces
- No change to other interfacing equipment (SGU)
- Fully interchangeable and fully mixable as single unit, single side, or full cockpit with ED-800
- Reduces repair maintenance cost = labor and material savings
- Reduces logistics, shipping and labor costs

TSO/AML-STC approved and available now.

REGIONAL APPLICATIONS:

- ATR 42/72*
- DHC8-100/200/300
- Fokker 50
- Jetstream 41

*only available through ATR

BUSINESS JET APPLICATIONS:

- Falcon 900
- Challenger CL-600/601
- Citation III-A/III-D/VI/VII
- Hawker 800/800XP/1000
- Gulfstream III
- Learjet 31

KEY FEATURES

- Form/Fit/Function replacement – requires no aircraft modifications
- Fully interchangeable with legacy displays
- Eliminates Cathode Ray Tube (CRT) and high-voltage power supply for improved reliability
- Reduces life-cycle costs
- Reduces display weight by 50%
- Provides growth provision to accommodate future display functionality such as:
  - ADS-B
  - Graphical weather
  - SBAS approach
  - Windshear
- Reduces cost of logistics, shipping and labor cost
- Provides a new product warranty
- Advanced Thomas ADA 2.0 display processing technology from Thomas Global Systems

FEATURING
THOMAS ADA 2.0
ADAPTIVE DISPLAY ARCHITECTURE™
Thomas Global Systems

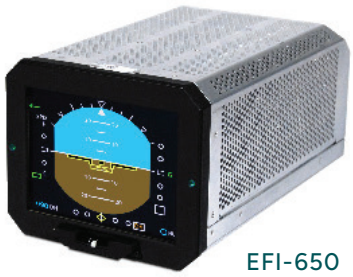
DISCOVER MORE:

acronaviation.com/avionics

Specifications

EFI-650	
Optical Performance	
Viewable Area:	3.4" (H) x 4.53" (W)
Addressability:	6-bits per color
Resolution:	640 x 480 (VGA)
Color:	262,144 possible; Video interface supports palette of 13 colors + black
Luminance:	0.1 fL to ~150 fL
Viewing Angles:	±45° horizontal; +45°, -23° vertical
High Amb. Contrast Ratio:	>3:1 across viewing envelope
Physical Description	
Dimensions (H x W x D):	w/inclinometer: 5.1" x 6.1" x 11.0" w/out inclinometer: 5.1" x 6.1" x 10.5"
Weight:	Approx. 5 lb.
Cooling:	Passive convective
Heating:	Integrated heater
Primary Power:	28VDC per DO-160G, Sec. 16, Cat. B; Operate thru 200 ms power interrupt
Power Consumption:	<20 Watts <35 Watts w/heater on
Bezel Configuration:	Photosensors for automatic dimming in response to ambient light
Functional Description	
Video Interfaces:	Analog (stroke and raster) video
Video Out:	Analog (stroke and raster)
Signal Interfaces:	Analog and discrete
Other (i.e. inclinometer):	Inclinometer is dimmable under control of aircraft lighting bus

APPROVED STCS
FAA AML – STC ST02479AK, December 30, 2016
EASA AML – STC 10061293, May 16, 2017
TCCA (Canada) AML – STC SA18-39, May 7, 2018
CAAC (Australia) AML – FAA STC ST02479AK



EFI-650

EFI-650	
Environmental Performance (DO-160G)	
Temperature & Altitude:	Sec. 4, Cat. A2
Low Operating Temp:	Sec. 4.5.2, -20° C
Low Short-Term Operating Temp:	Sec. 4.5.1, -40° C
High Short-Term Operating Temp:	Sec. 4.5.3, +70° C
High Operating Temp:	Sec. 4.5.4, +70° C
Loss of Cooling Test:	Sec. 4.5.5, 240 min @ 40° C
Ground Survival Low Temp:	Sec. 4.5.1, -55° C
Ground Survival High Temp:	Sec. 4.5.3, +85° C
Altitude:	Sec. 4.6.1, 55,000 ft.
Decompression Test:	Sec. 4.6.2, 55,000 ft.
Overpressure Test:	Sec. 4.6.3, -15,000 ft.
Temperature Variation:	Sec. 5, Cat. C
Humidity:	Sec. 6, Cat. A
Operational Shocks & Crash Safety:	Sec. 7, Cat. B
Vibration:	Sec. 8, Cat. S(M), R(BB1)
Explosion Proofness:	Sec. 9, Cat. X
Waterproofness:	Sec. 10, Cat. W
Fluids Susceptibility:	Sec. 11, Cat. F
Sand and Dust:	Sec. 12, Cat. X
Fungus Resistance:	Sec. 13, Cat. X
Salt Fog:	Sec. 14, Cat. X
Magnetic Effect:	Sec. 15, Cat. Z
Power Input:	Sec. 16, Cat. BRX
Voltage Spike:	Sec. 17, Cat. A
Aud. Freq. Conducted Susceptibility Power Inputs:	Sec. 18, Cat. Z
Induced Signal Susceptibility:	Sec. 19, Cat. CC
Radio Frequency Susceptibility:	Sec. 20, Cat. MD
Emission of Radio Freq. Energy:	Sec. 21, Cat. M
Lightning Induced Transient Susceptibility:	Sec. 22, Equipment tested to: Pin Injection: Category A3 Cable Bundle: Category J3L3
Lightning Direct Effects:	Sec. 23, Cat. X
Icing:	Sec. 24, Cat. X
Electrostatic Discharge:	Sec. 25, Cat. A
Fire, Flammability:	Sec. 26, Cat. C

Acron Aviation is an agile commercial aviation partner with a long heritage of providing established, industry-certified solutions, as well as future-focused, data-driven innovations. With customers across the globe our employees are committed to the company mission of innovating to create safer skies. For more information visit acronaviation.com