

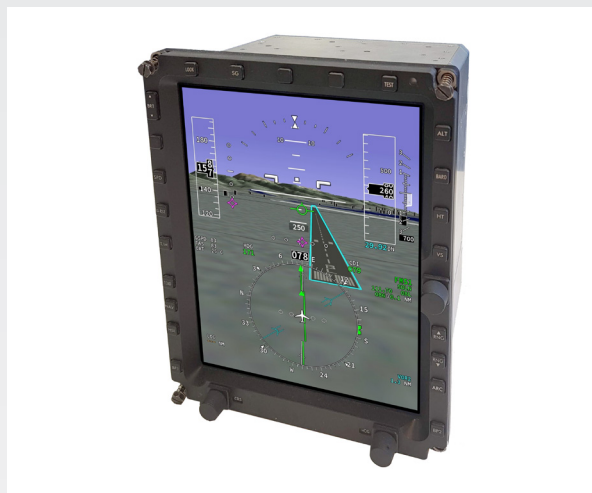


Advanced Visualization

MFD-2068

10.4" (6" x 8")

Multi-Function Smart Display



Main features:

- Powerful processing and graphics with substantial growth capability
- ScioTeq's MOSArt™ middleware platform for hosting multiple software applications at different DAL levels (A to E)
- Very wide viewing angles – ideal for cross-cockpit viewability
- Brightness up to 200fL, making it suitable for installation in helicopters and open cockpit aircraft
- NVIS Class B compatibility
- Guaranteed brightness and color range over the operating temperature of the display and over its lifetime
- Large array of Input and Output interfaces

Using a powerful processing platform the MFD-2068 is an open system very well suited for hosting today's demanding applications. This ARINC 653-based display platform is based on VxWorks653 Real Time Operating System (RTOS) and ScioTeq's MOSArt™ (Modular Open System Architecture) middleware.

Modular by design, the MFD-2068 allows customers to simultaneously host combinations of software applications that can be customer proprietary, ScioTeq proprietary, such as Primary Flight Display (PFD), Navigation Display (ND), etc., and from 3rd parties. Importantly, these hosted applications can be individually designed to varying Design Assurance Levels (DAL), up to and including DAL A, reducing development and integration costs.

Optically, ScioTeq's proprietary Active Matrix Liquid Crystal Display and LED backlight technology delivers a visual performance second to none: high contrast ratio and superior color stability, very wide viewing angles and superior brightness in Day, Night and NVIS modes. And there is even more: the optical quality is guaranteed over the complete temperature range and life-time of the display, thanks to ScioTeq's proprietary control mechanisms.

Technical specifications

MFD-2068

Processing	
Computing & Graphic module	PowerPC based CPU, OpenGL ES SC capable GPU
RTOS	ARINC-653 WindRiver Vxworks RTOS
ScioTeq MOSArt™ open platform	Allows development and hosting of customer supplied, 3 rd party or ScioTeq applications. Can host multiple applications at different DAL levels simultaneously.
Electro-optical	
Panel type	Active matrix LCD (normally black)
Panel active area	10.4" diagonal (6" x 8")
Panel resolution	1024 x 768
Viewing angle	<ul style="list-style-type: none"> • H: +/-55° • V: +/-35° Can be tailored to program requirements, such as the addition of specific collimation to reduce canopy reflections, etc.
Backlight	LED backlight
Luminance	<ul style="list-style-type: none"> • 0.1 up to 200fL (non-NVIS mode) • 0.03 up to 2fL (NVIS mode) Luminance and color stabilized over the life time and the complete temperature range of the display
Sunlight readability	Contrast ratio >14:1 @ 10,000 fC
NVG compatibility	MIL-STD-3009 Type I/II, NVIS Class B
Heater	Heater for display startup at extremely cold temperatures
Interfaces	
Video inputs / Outputs ⁽¹⁾	Inputs: 1 x DVI-D, 1x PAL/NTSC Outputs: 1x DVI-D (screen copy)
Control Interfaces ⁽¹⁾	24 Arinc429 input channels, 6 Arinc429 output channels 2 Arinc708 input channels for WX radar or TAWS 17 Open/GND general purpose discrete inputs. 3 dedicated discrete input ('Power supply enable', 'Maintenance mode enable', 'NVIS') 6 Open/GND general purpose discrete outputs. 1 'Fail' discrete output 1 Ethernet line 10/100Mbit, 2 EIA-485, 2 EIA-422, 1 RS-232 (maintenance line)
	Some combinations of the above I/O may be restricted. Contact ScioTeq for details or other custom options.
Controls	
Brightness control	ALS sensors, bezel control, or remote
Bezel controls ⁽¹⁾	Available with custom bezels
General specifications	
Power supply	28VDC, DO-160G
Power consumption	<120W @ 200fL (20°C ambient)
Weight	7 kg / 15.5 lbs
Dimensions (WxHxD)	202.1mm (Width) x 259.2mm (Height) x 176.5 mm (Depth incl. connector flange)
Certification	ETSO-C113
Software	developed to RTCA/DO-178B DAL A, capable of hosting applications up to DAL A
Hardware	developed to RTCA/DO-254 DAL A, capable of hosting applications up to DAL A
Environmental conditions	
Compliance	DO-160G; (MIL-STD-810G & MIL-STD-461E optional)
High temperature	+55C operational / +70C short-time / +85C ground survival
Low temperature	-40C operational / -55C ground survival
Altitude	35,000 ft

⁽¹⁾ Please contact ScioTeq for other possible options

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