![ScioTeq — Advanced Visualization]

RDU-3045

6.4" (4"x5") Rugged Video Display Unit

Main features:

- Best-in-class AMLCD for superior color rendering and best-in-class imagery
- Very wide viewing angles – ideal for cross-cockpit viewability
- Brightness capability above 300fL, making it suitable for installation in helicopters and open cockpit aircraft.
- Guaranteed brightness and color range over the operating temperature of the display and over its lifetime
- Low weight <2 kg / 4.4 lbs
- 2 video inputs standard
- Several control interfaces available (A429, RS-422, Discretes, …)
- Optional touchscreen
- 5.75" DZUS rack mountable
- Various bezel configurations possible
- Continuous operations at up to 71C without external cooling
- Quiet by design, thanks to its closed and fan-less architecture

The RDU-3045's 4"x5" (6.4") proprietary Active Matrix Liquid Crystal Display and LED backlight technology deliver a visual performance second to none: high color depth, contrast ratio and superior color stability, very wide viewing angles and superior brightness modes. This allows the display to be mounted in portrait or landscape both vertically in front of the pilots and tilted horizontally in the pedestal, assuring perfect cross-cockpit vision.

And there is even more: the optical quality is guaranteed over the complete operating temperature range and lifetime of the display, thanks to ScioTeq's proprietary control mechanisms. As an option, the light can be collimated to reduce reflections on the windshield or canopy.

Its multiple digital video and control interfaces allow for an easy integration with several sources. And last but not least, the optional touchscreen enables the integration of various cockpit functions reducing overall cockpit system costs and space requirements.
Therefore this display is ideal in Control Display, HUD repeater, ... applications.

The software and firmware of the RDU-3045 are developed according to DO-178 and DO-254, capable of supporting DAL-A functions.

Technical specifications

	RDU-3045
Electro-optical	
Panel type	Active matrix LCD (normally black)
Panel active area	6.4" diagonal (4"x5")
Panel resolution	1024 x 768 (XGA)
Viewing angle	H: +/- 55° V: +/- 35° Can be tailored to program specific requirements, such as the addition of specific collimation to reduce canopy reflections, etc.
Backlight	LED backlight
Luminance	0.1 to >300fL (non-NVIS mode) 0.03 up to 2fL (NVIS mode) Luminance stabilized over the life time and the complete temperature range of the display
Sunlight readability	Contrast ratio >10:1 @ 10,000 fC
NVG compatibility (optional) [1]	MIL-STD-3009 Type I/II, NVIS Class B
Heater (optional) [1]	Heater for display startup at extremely cold temperatures
Interfaces	
Video [1]	Two video inputs as default DVI, A818 or SMPTE-292 (HD-SDI) (other combinations on request) [1]
Inputs/Outputs	Video source/mode selection and BIT data retrieval via either RS-422 or A429 Discretes for display configuration, lighting mode selection, etc. ARINC 429 control, RS-232 maintenance interface
Controls	
Touch screen	Multi-touch capability through PCAP with built-in mechanisms for certifiable touch interface (optional)
Bezel controls [1]	Available with custom bezels
Brightness controls	ALS sensors, bezel control, or remote
General specifications	
Power supply	28VDC, MIL-STD704A
Power consumption	<30W @ 200fL (20C ambient)
Weight	<2 kg / 4.4 lbs
Cooling	Passive cooling (no requirement for forced external cooling) - fanless design
Dimensions (WxHxD) [1]	5.75" (Width) x 6,75" (Height) x 1.5" (Depth excl. connector flange)
Software	developed to RTCA/DO-178, capable of supporting DAL-A functions
Hardware	developed to RTCA/DO-254, capable of supporting DAL-A functions
Environmental conditions	
Compliance	DO-160G; MIL-STD-810G & MIL-STD-461E (optional)
High temperature	+71°C operational / +85°C shorttime / +85°C ground survival
Low temperature	-45°C operational /-55°C ground survival
Altitude	50,000 ft

[1] Please contact ScioTeq for details

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