

DuraVIS 3010

6,5" VGA Vehicle and Avionics Display

Features

Display Size:

6,5"

Resolution:

VGA 640 x 480

Display interface:

- Differential LVDS
- Analogue VGA CRT

Power on sequencing control

Colours:

262.144

Brightness, contrast ratio, viewing angle:

850 cd/m², 250:1, 130°, ver. -45/35°, hor. +-50°

Backlight:

- CCF with 50.000 lamp life
- Wide adjustment range
- Manual control with pushbuttons
- Soft start upon power-up

Connector:

- Main I/O connector , sealed locking MIL
- USB/Serial RS-422, LVDS/CRT input, power, I/O

Display cover:

- 4mm thickness
- Optically treated hardened plastic

Enclosure:

Machined aluminium with optional VESA 75 mounting plate

Power supply:

- +18 to +36VDC
- Galvanically isolated to 1500V

Environmental:

- IP 65
- -20 to +70°C operating temperature

Certifications:

- MIL-STD461E/704E/810
- GAM-13



General Description

The DuraVIS™ 3010 is a reliable and optimal military-grade display solution to interface to a Eurotech DuraCOR™ central unit. Suitable applications include cockpit display, AMV (Armoured Modular Vehicles), Armoured personnel carriers, helicopters as well as transportation and cargo aircraft displays. The DuraVIS 3010 is an integrated, rugged stand alone flat panel TFT display unit for demanding applications on vehicles and aircraft. An inbuilt wide input range galvanically isolated power supply, state-of-the-art input filtering and protection circuitry and optimized backlight control extends display life. Integrated into a precision machined black anodized aluminium enclosure is a wide operating temperature VGA (640 x 480) TFT-display that is protected against shock, crash or vibration. Optimal operation during night and day conditions is possible due to the adjustable backlight that can be reduced from 100% down to 5%.

A wide input range isolated military class power supply provides power to the display unit itself. The input of the power supply is designed to withstand the electrical environment of vehicle or aircraft installations; overvoltages, transients, load dump, reverse polarity and short circuit conditions.

Available standard options include a resistive touchscreen with a serial RS-422 or USB 1.1 host interface. The touchscreen can work as the only pointing device, or parallel with another mouse device. Drivers are available for all popular commercially available operating systems. Optionally 6 pushbuttons can replace the touchscreen for user input. The internal microcontroller will interface the 6-user configurable pushbuttons to the host computer using the serial RS-422 interface. An optional VESA 75 adapter plate can be fitted onto the back of the DuraVIS3010 display.

Technical Features

- Proprietary microprocessor system monitor
- Buffered LVDS input – live insert protected, compatible with Eurotech DuraCOR central units
- D-SUB or MIL connector options
- Analogue monitor or digital LVDS drive
- USB1.1 or RS-422 touchscreen interface
- Internal microprocessor controlled backlight
- 35W power supply with overload protection
- Proprietary multi-stage input filtering and protection circuitry for lowest emissions and avionics class immunity.
- Application specific firmware functions for pushbuttons

MIL - connector pinout table

SIGNAL	HE308	ALTERNATE
RS422 RX+	3	USB V+
RS422 RX-	7	
RS422 TX+	4	USB D+
RS422 TX-	5	USB D-
RS485 A	20	
RS485 B	21	
VBAT+	1	
VBAT-	2	
RED	9	LVDS CLK+
GREEN	10	LVDS CLK-
BLUE	12	LVDS D1+
HSYNC	13	LVDS D1-
VSYNC	14	LVDS D2+
GND	8	LVDS GND
GND	11	LVDS GND
GND	18	LVDS GND
GND	19	
GND	6	USB GND
N.C.	15	LVDS D2-
N.C.	16	LVDS D3+
N.C.	17	LVDS D3-
N.C.	22	RESERVED

Connectors

- Standard D-SUB connector
 - Power, RS-422 touchscreen
 - Analogue VGA display input
- MIL connector – circular HE308 type
 - Analogue/LVDS input, Power, RS-422/USB touch, pushbuttons

Compliance

- EMC – MIL STD-461E, MIL STD-704E, GAM-13
- Environmental and mechanical – MIL STD-810

Power Supply

- Galvanically isolated up to 1500V
- +18 to 36Vdc input range
- 35W peak output power

Physical Characteristics

- **Dimensions:** 7,56" (W) x 5,36" (H)
- **Thickness:** 1,5" (excluding connector)
- **Power consumption:** 0,5A /24V typical 12W
- **Temperature:** -20 ~ + 70 °C (operating)
-20 ~ + 85 °C (storage)
- **Mounting:** VESA 75 adapter available with M4 mounting holes
- **Connector (MIL)** Amphenol 22-pin male TVP00RW-13-35PA (W52)