



Improve Your Image

Marine Grade LCD Displays



PowerVue Series



VARTECH
SYSTEMS INC.

HEADQUARTERS
11529 Sun Belt Ct.
Baton Rouge, Louisiana 70809

Phone 800.223.8050
International 001.225.298.0300
Fax 225.297.2440

E-mail sales@vartechsystems.com
Website www.vartechsystems.com

www.vartechsystems.com

11.3.2011

PowerVue Series Marine Grade Certified LCDs

VarTech Systems manufactures a line of highly engineered Ruggedized Marine Grade LCD Displays for the most severe environments. VarTech incorporates many features unique to the marine marketplace: ECDIS, Radar, Remote Control, Video Buffer (Multi-Drop) and Auxiliary Power Relay Output. Our PowerVue monitors offer continuity by design for Navigation and Ship Board Automation applications. As well, these units are suitable for a wide variety of military, commercial shipping, vehicle mounting and avionics applications where low EMI and long-term vibration resilience are essential criteria. Our PowerVue series is engineered to meet demanding application needs of your marine monitor display and military LCD flat panels.

Our state-of-the-art PowerVue series monitors have been specifically designed to withstand harsh maritime environments and to meet the stringent demands of the international standard for Maritime Navigation and Radio Communications Equipment & Systems. Furthermore within our range we offer monitors meeting ECDIS (Electronic Chart Display Information System) and ARPA (Automatic Radar Plotting Aid) compliance.



Backlight Dimming

During nighttime operations in Bridge and Wheelhouse environments it is important to optimize ambient light conditions for night vision capability. ECDIS applications require monitors to have brightness dimming capability below 1 cd/m².

VarTech Systems is at the forefront of backlight dimming technology and offers fully dimmable controls on both our military monitor displays and our marine flat panel displays.

COTS

With respect to naval applications the use of commercial off-the-shelf (COTS) based monitors is becoming increasingly commonplace.

VarTech is addressing the challenges of manufacturing cost effective monitors to the highest specifications.

Our PowerVue series offers a comprehensive line of 15.0" to 23.1" military and marine monitor displays.

ECDIS (Electronic Chart Display Information Systems)

ECDIS approval allows the monitor to be used in applications where radar and navigation information is displayed i.e. IBS (Integrated Bridge System). This system is necessary in any application where a military flat panel display is needed.

ECDIS provides the navigator with a highly accurate, flexible and fully approved alternative to the traditional paper charts that will interface and network with ship's sensors and systems, including radar. This is ideal for all marine LCD display systems.

17" & 19" Marine LCD Monitors



Rack Mount



VESA Mount

All 17 & 19" Marine Models Feature:

- Advanced Deep Dimming 2000:1
- IEC 60945 Certified or Compliant
- Shock and Vibration Resistance
- Contrast Enhancing AR Safety Glass
- ECDIS and Radar Certified or Compliant
- Video Buffer and Remote Control
- -15°C to 55°C Operating Temperature
- Brightness: 250 cd/m²

Model	Touch Screen	Automatic Image Size Adjustment	Picture in Picture	Other Features
VT170RP2	Optional	yes	yes	Advanced Deep Dimming to Black
VT190WP VESA	no	yes	yes	Internal Audio Speakers
VT190RP2	Optional	yes	yes	Advanced Deep Dimming to Black



Marine Communications
IEC 60945: 4th Edition

ECDIS & Radar Compliance
IEC 61174 via BSH, Germany

EMC & Safety
EN 50081-1 (Emissions),

21.3" Marine LCD Monitors



VT213WP

VESA Mount Marine Display

FEATURES

- IEC 60945 Certified
- ABS Certified
- Advanced Deep Dimming 2000:1
- Audio Speakers (Internal)
- Automatic Image Size Adjustment + Picture In Picture
- Front Panel Sealed to IP65 / Rear IP23
- Video Buffer (Multi-Drop) & RS232 Remote Control
- Versatile Mounting (VESA 100mm) Desktop or Console Mount
- -15°C to 55°C Operational Temperature

This rugged marine monitor is IEC certified for EMC (Electromagnetic Compatibility), Environmental and ABS (American Bureau of Shipping).

Brightness is dimmable for night operation and the power indicator (LED) luminance is controlled by a photo-diode for automatic dimming as the ambient lighting reduces. The Dimming Ratio is greater than 2000:1. The Monitor is manufactured in full compliance with IACS E10.

The VT213WP offers continuity by design for all Navigational and Ship Automation applications.



VT213RP

Rack Mount Marine Display

FEATURES

- Advanced Deep Dimming 2000:1
- Automatic Image Size Adjustment + Picture In Picture
- Built-in External Power Relay (AC version)
- Contrast Enhancing AR Safety Glass
- IEC 60945 Compliant
- ECDIS & Radar Compliant IEC 61174
- Video Buffer (Multi-Drop) & RS232 Remote Control
- Rack Mount (11U High) + Versatile fixing for Arms / Brackets
- -15°C to 55°C Operational Temperature

This 11U Rack Mount Marine monitor also offers flexible mounting combinations such as 100mm VESA standard fixings at the rear, and a separate mounting bracket for control desk or overhead positioning.

The VT213RP is manufactured in full compliance with IACS E10. The flat panel is designed with ECDIS and Radar in mind and to specifically meet the stringent demands of shock, vibration, EMC and EMI defined in the IEC 60945 International Standard for Maritime Navigation and Radio Communications Equipment & Systems.

This monitor offers continuity by design for all navigation and ship automation applications.

VT231RP - 23.1" Rack Mount Marine Display

FEATURES

- Advanced Deep Dimming 2000:1
- Automatic Image Size Adjustment + Picture In Picture
- Built-in External Power Relay (AC version)
- Contrast Enhancing AR Safety Glass
- ECDIS & Radar Compliant IEC 61174
- Video Buffer (Multi-Drop) & RS232 Remote Control
- -15 to 55C Operational Temperature
- NEMA 4 (IP65) Front Seal



The VT231RP 23.1" TFT monitor has been designed specifically to meet the stringent demands of Shock, Vibration, EMC, EMI defined in the IEC 60945 International Standard for Marine Navigation and Radio Communications Equipment & Systems. A milled aluminum front plate gives exceptional stability to the construction. The VT231RP is also manufactured in full compliance with IACS E10.

Brightness is dimmable for night operation by rotary control on the front plate. The AC power indicator (LED) luminance is controlled by a photo-diode for automatic dimming as the ambient lighting reduces. The Dimming Ratio is greater than 2000:1.

In addition to VESA standard fixings at the rear, there is also an optional mounting bracket for control desk or overhead installation.

SPECIFICATIONS

Display Size	23.1"	Sync	Separate H/V (+/-ve) TTL or Composite TTL
Panel Type	TFT Active	Power Source	90-265V AC 50/60 Hz Internal
Resolution	VGA to UXGA	Power Consumption	100W max
Active Display Area	18.52"(w) x 13.89"(h) 470.4mm(w) x 352.8mm(h)	Shock	10g, 11msec 1/2 sine
Contrast Ratio	600:1 min	Vibration	+/-1mm, 2 to 13Hz:0.7g, 13 to 100
Colors	16.7 million (graphic card dependant)	Temperature	Operating: -15° to 55°C Storage: -20° to 60°C
Viewing Angle	Left / Right: 85/85 Degrees Up / Down: 85/85 Degrees	Humidity	Operating: 30 to 90% NC Storage: 10 to 90% NC
Scan	Horizontal: 31-106 KHz Vertical: 60-85Hz	Altitude	Operating : up to 15,000 ft Storage: up to 40,000 ft
Brightness	250 nits	Monitor Dimensions	22.99"(w) x 21.02"(h) x 3.83"(d) 584mm(w) x 534mm(h) x 97.5mm
Back Light	50,000 Hours Half Life	Weight	35.2lbs. / 16kg
Video Input	Analog RGB 0.7-1.0V p-p, 75 ohm, PAL/NTSC & SEACAM with Picture-in-Picture	Connectors	RGB Signal - 15-pin HD Female (D-Type), Video Signal - RCA + S-video socket, RS232 Remote Control - 9-pin Male D-Type, Power -3-pin IEC male
Response Time	20ms		