

OVERVIEW

The Vector 19-inch display is ideally suited for use with minimally or non-invasive surgical equipment. This medical-grade device meets and exceeds the stringent safety and performance requirements necessary for use in the OR for Laparoscopy, Orthopedics, Urology or any medical setting where superior image quality, natural color, exceptional contrast, and high brightness are required.

DICOM COMPLIANT

This color display is also 100% DICOM compliant through the use of sub-pixel color modulation (a detailed explanation of sub-pixel modulation can be found at the NDS web site in the technology link). This technique gives the display 1786 levels of gray to chart for DICOM compliancy versus the standard 256.

SUPERIOR PERFORMANCE

Designed for use in virtually any medical application, NDS' proprietary SmartSync™ technology and double coated anti-reflective filters ensure image integrity, while producing life-like image and colors with superior details. The Vector is available with five video inputs, including DVI digital, VGA analog, S-video, RGBS (15.75 KHz) and composite. The RS232 serial interface is a proprietary innovation that allows preset picture defaults to be downloaded to optimize image quality, with precise user-defined settings for specific procedures or to satisfy individual surgeon-specific image preferences.

FEATURES

- **Wide viewing angle of 170°**
- **Splash proof**
- **Protective front overlay**
- **MVA technology**
- **Medical-grade UL-2601-1**
- **Contrast enhancement**
- **RS232 serial control interface**
- **Auto-source select**
- **Color gamma adjustments**



MEDICALLY MANUFACTURED

The Vector is a professional medical device designed specifically for the OR environment. Unlike many LCD manufacturers who fashion existing off the shelf displays into medical equipment, this flat-panel is designed from the ground up for extreme durability and safety. Membrane style buttons and a non dimpled, sealed casing ensures particles (orthopedics) or other foreign matter won't accumulate into voids or openings and possibly spread contaminants. The completely sealed case also protects the internal components from any exposure to liquids that can sometimes be prevalent in the OR facility. The unit is also designed to run without fans of any sort (internal or external) that could possibly make contaminants airborne and spread bacteria. The 24Vdc version of the Vector 3 display is an excellent solution for boom or arm mounts that are constantly being repositioned. The low voltage input puts to rest any concern with running mains power through a metal arm. In addition, the low voltage design allows the external power supply to be located up to 100 feet away from the display.

SAFETY AND CERTIFICATIONS

In addition to other certifications, the Vector 3 display is medically approved to meet UL 2601.1 and IEC 601.1. These certifications define the medical standards for equipment to be used in the patient envelope (the 1.5 meter hemisphere around the patient). The IPX1 standard defines medical safety measures for liquid ingress.

Certifications/Compliance

EN 60601-1, UL 2601-1 (Classified), MDD 93/42/EEC, IEC-601.1, EN 46001, CE, ISO 9001, ISO 13485, Class I Medical Device, FDA Registration #2954921

19-INCH VECTOR™ ARM MOUNT MEDICAL-GRADE DICOM COMPLIANT FLAT PANEL-SURGICAL TECHNICAL SPECIFICATIONS

INPUT SIGNAL OPTIONS

RGB (VGA)
DVI (digital)
RGBS (15.75 KHz)
Y/C (S-Video)
Composite (NTSC, PAL)
HDTV (1080i; 1030i)
Serial (RS232) control

FEATURES

OSD in 6 languages
Selectable color temperature
Auto source select
SmartSync setup
OSD lockout
Programmable video modes
Built in video scaling
Serial (RS232) control

SERIAL INPUT COMMANDS

Input source select
Color temperature
Brightness
Contrast
Phase
Menu lockout
Plus many others

OPTICAL SPECIFICATIONS

Viewable area (diagonal) 19"
Brightness, w/o filter (typ) 250 cd/m²
450 cd/m² (optional)
Contrast 600:1
Viewing angle (H & V) 170°
Simultaneous colors 24-bit, 16.7 million
Dot pitch (mm) 0.294
LCD Switching technology MVA

CHROMATICITY

	250 cd/m ²	450 cd/m ²
White x	.313 +/-0.03	.313 +/-0.03
White y	.329 +/-0.03	.329 +/-0.03
Red x	.648 +/-0.03	.611 +/-0.03
Red y	.346 +/-0.03	.353 +/-0.03
Green x	.292 +/-0.03	.272 +/-0.03
Green y	.602 +/-0.03	.583 +/-0.03
Blue x	.150 +/-0.03	.155 +/-0.03
Blue y	.130 +/-0.03	.114 +/-0.03

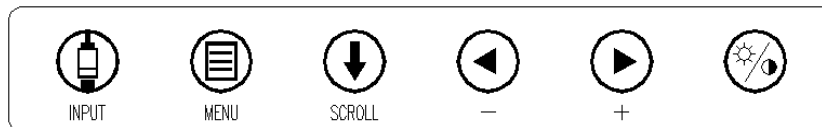
GENERAL SPECIFICATIONS

ABS plastic
Display type Cylolac, Bay Blend
Graphic standard Active matrix TFT
LCD Native resolution SXGA
1280x1024
Display Highest resolution 1600x1200
Response time @ 25°C 15ms
Input voltage: 24Vdc 16-24 Vdc (18 awg; 100ft)
Desktop stand (option) Tilt & swivel or easel

ENVIRONMENTAL SPECIFICATIONS

Operating
Temperature 0-40c
Humidity 20 to 85% NC
Power (typical) 60W
Voltage (input) 12Vdc
Non-operating
Temperature -20 +60c
Humidity 20 to 85% NC
Shock 1.5g
Vibration 10-500Hz, x,y,z

Keypad (user)
Interface



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NDS North America
Corporate Headquarters
16245 Vineyard Blvd.
Morgan Hill, CA 95037
TEL: 408.776.0085
FAX: 408.776.9878

National Display Systems Europe
Nijverheidscentrum 2D
2761 JP Zevenhuizen (ZH)
The Netherlands
Phone number : 0031 180 63 43 56
Fax number: 0031 180 63 21 91



www.nationaldisplay.com

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