

THE REPLACEMENT OF CHOICE FOR CRT SYSTEMS

LCD SURGICAL
FLAT PANEL DISPLAY



The EndoVue™ 19 LCD is part of the EndoVue™ LCD surgical flat panel display series from NDS. It offers a high definition interface (HDTV) featuring high brightness, high resolution, exceptional contrast, and true color reproduction with unsurpassed visual quality. The EndoVue delivers the key advantages of the Radiance™ Series from NDS in environments where only video-based images are required. Multiple sizes and high flexibility make it ideal for a wide variety of surgical and other applications.

The EndoVue is the replacement of choice for legacy CRT systems. Robust, lightweight, and highly maneuverable, it brings unique benefits to the GI lab.

STATE-OF-THE-ART DISPLAY IMAGING TECHNOLOGIES

The EndoVue™ Series incorporates state-of-the-art display imaging technologies exclusive to NDS. All EndoVue displays include *Picture-Perfect Technology™ (PPT)* eliminating jagged edges, *Image Lag Reduction™ (ILR)* technology for the finest industry-leading lag-free imaging, and the fastest video response (10-16ms) of any flat panel display. Proprietary *factory color-calibration* guarantees reliable, consistent, realistic image reproduction while *Remote Functionality Control (RFC)* delivers complete flexibility in image source selection.

DISPLAYS DESIGNED FOR THE MEDICAL INDUSTRY

Every component of an NDS' display meets or exceeds the highest safety standards. *Fanless cooling* prevents the introduction of contaminants into the sterile field. A *low-voltage (24VDC)* external power supply may be located up to 100 feet away, removing any electrical concerns. A

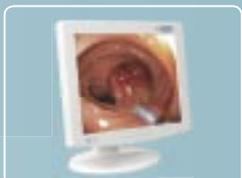
front-sealed, anti-glare overlay guarantees the highest level of defense against liquid ingress. *Membrane-style buttons* and a *non-dimpled enclosure* ensure foreign matter will not accumulate into voids and possibly spread contaminants.

THE LEADING INNOVATOR IN MEDICAL IMAGING

Headquartered in Silicon Valley, California, National Display Systems (NDS) designs, manufactures, and markets high-end LCD flat panel displays for Minimally Invasive Surgery (MIS), Radiology, and Patient Monitoring. NDS was the first to develop LCD flat panel displays specifically for surgical applications, and is today the only manufacturer providing the most comprehensive medical flat panel display solutions for multiple modalities. All NDS' systems are medical-grade devices certified under the most stringent U.S. and European safety and environmental standards.

- High Definition Imaging
- Superior Clarity, Consistency, Quality
- Fastest Response Time (10-16ms)
- Widest Viewing Angle
- Widest Color Gamut
- Programmable User and Modality Preferences
- Re-Drive Capability Enables Image Viewing on Multiple Displays
- Video-Switching with Serial Port Interface
- Safe Low Voltage 24 VDC Remote Power
- Compact and Lightweight
- Flexible Standard VESA Mounting
- Fully Compliant Medical-Grade, FDA, UL, and CE Approved

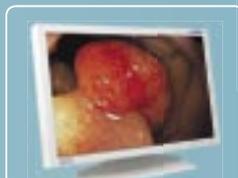
THE MOST COMPREHENSIVE SURGICAL FLAT PANEL DISPLAY SOLUTIONS



RADIANCE™ 19 HD



RADIANCE™ 23 HD



RADIANCE™ 32 HD



RADIANCE™ 42 HD



ENDOVue™ 15



ENDOVue™ 19

ENDOVIEW™ 19 LCD SURGICAL FLAT PANEL DISPLAY

IMAGE PERFORMANCE

LCD Panel	a-Si TFT Active Matrix
Picture Size (H x W)	14.8 x 11.9 inches (376 x 301 mm)
Viewing Area (Diagonal)	19 inches (482 mm)
Pixel Pitch	0.294 mm
Resolution (H x W)	1280 x 1024 (SXGA)
Luminance	350 cd/m ²
Contrast Ratio	650:1
Aspect Ratio	5:4
Number of Colors	16.8 Million
Color Gamut	100% (SMPTE 296M, HD Standard)
Viewing Angle	170°
Response	10-16 ms, Gray-to-Gray
Gamma	1.8, 2.0, 2.2, 2.4, 2.6, Color-Corrected Video Gamma and PACS

GENERAL

Power Requirements	Display: 16 – 24 DC; DC Power Supply: 100 to 240 VAC ± 10%, 50/60 Hz
Power Consumption	60W (typical)
Dimensions (W x H x D)	18 x 16 x 4 inches (465 x 400 x 98 mm)
Weight	15 lbs (6.8 Kg)
Temperature	Operating: 0 to +40°C (+32 to +104°F) Storage: -20 to +60°C (-4 to +104°F)
Humidity	Operating: 20 – 85% RH; Storage: 5 – 85% RH
Mounting	100 mm VESA

INPUTS/OUTPUTS

Video Inputs

S-Video	DIN-4, or BNC x2 (Y&C), 0.7 Vp-p ± 6db, 75 Ω terminated
RGBS (VGA), YP _b P _r	BNC x5, or HD-15, 0.7 Vp-p ± 6db, 75 Ω terminated
Composite	BNC, 0.7 Vp-p ± 6db, 75 Ω terminated

Display Control Input

Serial Remote	D-sub 9pin, RS-232C
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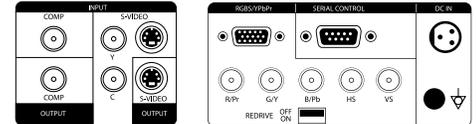
Video Outputs

S-Video	DIN-4
RGBS (VGA)/YP _b P _r	BNC x5, or HD-15
Composite	BNC

User Controls

OSD	RGBS Adjust, Hue, Saturation, Contrast, Brightness Gamma Select: 1.8-2.6, Video (VGA only), Backlight Level, Horizontal and Vertical Position, Overscan: Off / On (Up to 25% Overscan), Phase and Frequency, 5 Programmable User/Modality Preferences
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Input/Output Connector Panel



VIDEO INPUT FORMATS

Format	Input Analog	Horizontal Frequency (kHz)	Interlace/Progressive	Aspect Ratio	Standard Digital
576/50i (PAL)	Comp, S-Video, RGBS, YP _b P _r	15.625	Interlace	4:3	SMPTE 259M/C ITU 601
480/60i (NTSC)	Comp, S-Video, RGBS, YP _b P _r	15.734	Interlace	4:3	SMPTE 259M/C ITU 601
576/50p	RGBS, YP _b P _r , SOG	31.250	Progressive	16:9 / 4:3	-
480/60p	RGBS, YP _b P _r , SOG	31.469	Progressive	16:9 / 4:3	SMPTE 293M
720/50p	RGBS, YP _b P _r	37.500	Progressive	16:9	SMPTE 296M
720/60p	RGBS, YP _b P _r	45.000	Progressive	16:9	SMPTE 296M
1080/50i	RGBS, YP _b P _r	31.250	Interlace	16:9	SMPTE 274M
1080/60i	RGBS, YP _b P _r	33.750	Interlace	16:9	SMPTE 274M

SUPPLIED/OPTIONAL ACCESSORIES

- Supplied: Video Cables (S-Video)
- Optional: Desktop Stand

COMPLIANCE & CERTIFICATIONS

UL 60601.1; EN 60601; MDD 93/42/EEC; CE, ISO 9001:2000 and ISO 13485:2003; CAN/CSA C22.2 NO. 601.1 & CCC; Class I Medical Device; FDA Registration #2954921; RoHS



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For more information

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www.nationaldisplay.com

Doc # 60D0021C

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