

#### INNOVATION IN **HIGH DEFINITION** SURGICAL IMAGING





The Radiance® Series is the most advanced, high-definition (HD) medical imaging system for Minimally Invasive Surgical (MIS) and interventional procedures. It incorporates NDS' proprietary Advanced Image Processing (AIP) technologies providing a unique multi-modality platform for simultaneous processing of images from different sources – endoscopic camera, fluoroscope, ultrasound, or any other – resulting in unprecedented accuracy, efficiency, and collaboration for operating and clinician teams.

#### ADVANCED IMAGE PROCESSING (AIP)

Multiple Modality Image Processing (MMIP) - NDS' MMIP technology accepts video and/or data from multiple modalities combining them into one seamless image. The advanced image processing provides any surgical or interventional specialty the ability to view a radiological image (live or stored) in order to locate the clinical abnormality and perform the intervention under the most precise visualization. MMIP significantly reduces procedural risks and results in improved patient outcomes as well as cost and time savings.

Image Lag Reduction  $^{\text{TM}}$  (ILR) - NDS' ILR advanced interpolation algorithms deliver the fastest video response time with virtually lag-free imaging, greatly optimizing surgical navigation.

Picture-Perfect Technology  $^{\text{\tiny TM}}$  (PPT) - NDS' PPT smoothing algorithms eliminate the jagged edges that appear when interlaced video signals are displayed on a flat panel monitor, resulting in utmost clarity.

#### THE LEADING INNOVATOR IN MEDICAL IMAGING

National Display Systems (NDS) designs, manufactures, and markets state-of-the-art medical imaging technologies for today's integrated OR and interventional suites. NDS' product line covers a broad spectrum of surgical and clinical solutions from imaging visualization and integration to infection control. All NDS' systems are medical-grade devices certified under the most stringent U.S., Asian and European safety and environmental standards.

# **RADIANCE® 19 HD**

The Radiance® 19 HD is the first 19-inch high-definition (HD) system with advanced image processing technologies that allow simultaneous viewing of endoscopic, fluoroscopic and/or radiological images, meeting the needs of today's interdisciplinary, integrated clinical environments.

# A Multitude of Clinical Applications

- Minimally Invasive Surgery, Endoscopic Surgery, Interventional Procedures
- Simultaneous fluoroscopic diagnostic and surgical imaging
- Ultrasound, vital sign imaging
- Radiology/PACS imaging

# **Highly Adaptable**

- OR Boom-Arms, Surgical Video Carts, C-Arms, Colonoscopy Systems, Image-Guided Surgery (IGS) Systems, Computer-Assisted Systems (CAS), Robotic-Assisted Systems (RAS)
- Fully compatible with OR video control applications
- Surgeon-specific user-selectable settings
- Footswitch instant remote switching between sources

### Designed for the OR

- Sealed front panel in lightweight design
- Fanless cooling; Low voltage power supply
- Fully compliant medical-grade FDA, UL, and CE approved



# MULTI-MODALITY IMAGE VIEWING

# **EXAMPLES OF VIEWING MODES**

GRADIANCE

### **Primary Input**

High-Definition Endoscopy & Radiology Imaging

### Secondary Input

Standard Definition Endoscopy & Auxiliary Imaging



High-Definition Endoscopy:

HD-SDI, DVI, Fiber, HD-RGBS, HD-YP

Radiology Imaging: (Shown Above)
DVI or Fiber (PACS), SOG (Frequency)

CT & MRI Imaging: DVI or VGA

Vital Signs: DVI or VGA

Image-Guided Surgery: DVI or VGA

Ultrasound: VGA

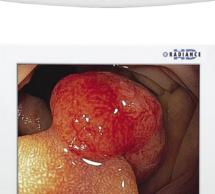
Standard Definition Endoscopy: (Shown Above) SDI, RGBS, YP, P., S-Video, Composite

Video Printer: S-Video, Composite

OR Room Camera: S-Video, Composite

Ultrasound: S-Video, Composite

Tele-Medicine: S-Video, Composite



### INPUTS

Video Inputs	Imaging Applications
HD-SDI	High-Definition Endoscopy
RGBS, YP <sub>b</sub> P <sub>r</sub>	High-Definition Endoscopy
Sync-On-Green (SOG)	Fluoroscopy
DVI	PACS, MRI, CT Imaging, High-Definition Endoscopy, Vital Signs
VGA	Ultrasound, MRI, CT Imaging, Vital Signs
S-Video, Composite	Standard Definition Endoscopy, Ultrasound, Fluoroscopy
Optional Fiber Optic	PACS, MRI, CT Imaging, Endoscopy

### **GENERAL SPECIFICATIONS**

Resolution (H x W)	1280 x 1024 (SXGA)
Luminance	450 cd/m <sup>2</sup>
Contrast Ratio	650:1
Gamma Settings	1.8, 2.0, 2.2, 2.4, 2.6, Color-Corrected Video Gamma and PACS
Power Requirements	Low Voltage DC Power Input, 24V

#### **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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