

**OLYMPUS**<sup>®</sup>

Your Vision, Our Future

**VISERA  
ELITE II**

# BEYOND VISION

A New World of Possibilities



## INTRODUCING VISERA ELITE II

### **Beyond Vision – Striving for Improved Quality of Patient Care**

With VISERA ELITE II Olympus has developed a versatile and efficient imaging platform. Due to the compatibility with a wide range of endoscopes and multiple different observation methods like enhanced 3D visualization or special light observation, VISERA ELITE II is a clinical optimized solution for each medical specialty.



With VISERA ELITE II Olympus goes beyond vision in order to achieve:

#### **Increased Cost Efficiency**

by reducing costs and the risk of complications.

#### **Simplified OR Work Flow**

by enhancing usability and handling of OR equipment.

#### **Optimized Versatility**

by offering a clinical solution for each medical specialty.

#### **Improved Patient Outcomes**

by developing and enhancing observation methods and technologies.

## A NEW WORLD OF VERSATILITY

### Possibilities for a Whole World of Surgical Specialties

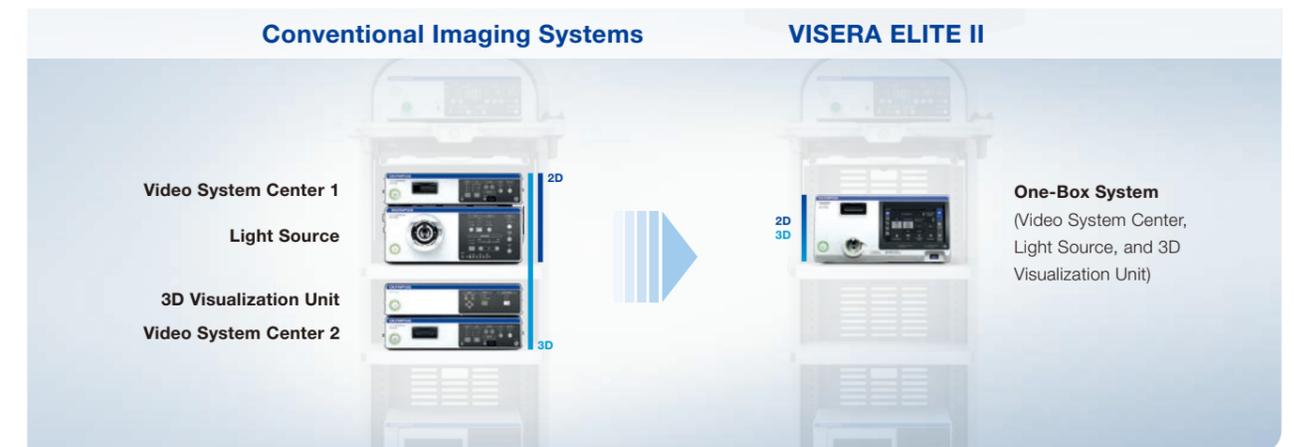
Today's ORs are multifunctional, supporting a range of surgical specialties. That's why VISERA ELITE II is fully flexible to the demands of any surgical procedure. It is an imaging platform for general surgery, for urology, for gynecology, for ENT, and more, which links the OR to other devices and facilities around the hospital. Share and play back images or videos with colleagues within the OR, within lecture theaters, or within departments to standardize training and perform peer-to-peer or patient consultations.



## A NEW WORLD OF SIMPLICITY

### Compact One-Box System to Save Costs, Time, and Space

Whereas most 2D and 3D imaging systems require two or more devices, VISERA ELITE II provides everything in one compact system. The reduced number of devices and cables leads to a simplified OR workflow in terms of equipment preparation, maintenance, troubleshooting, and cable management. In addition the time for training of nurses and OR staff can be decreased.



### Intuitive Handling and Easy Setup

The LCD touchscreen allows for easy navigation and setting configuration without using a keyboard:

- LCD touchscreen with intuitive icons, immediately familiar to use
- Settings can be saved and loaded for customization usage
- Easy staff rotation and training



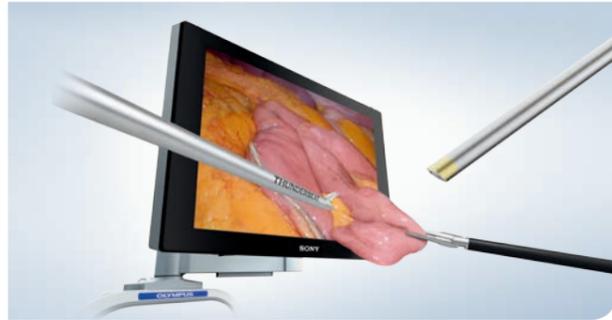
### All-in-One Design

- All-in-one laparoscope with integrated light cable and camera system
- Ergonomic design
- Plug and play design – Simple to set up and easy to use



## OPTIMIZED CLINICAL SOLUTIONS

**VISERA ELITE II is an integrated solution optimized for each medical specialty. It is compatible with a wide range of rigid and flexible endoscopes, camera heads, and ENDOEYES.**



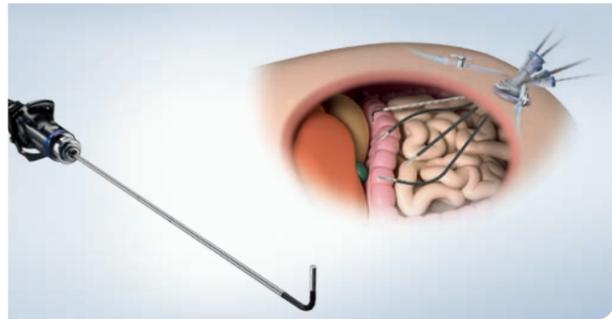
### 3D Laparoscopy

- Exceptional 3D perception and brilliant image quality with rigid 0° and 30° ENDOEYE
- 3D image rotation while maintaining the horizon with 30° rigid ENDOEYE
- Autoclavable, focus-free, and plug and play



### 2D Laparoscopy

- Natural color tone, reduced halation, and improved red color tone due to LED lamp
- Observe organs and tissues from multiple directions with ENDOEYE FLEX 100° angulation
- Compact and lightweight camera head for white light and infrared observation



### Laparo-Endoscopic Single-Site Surgery

- More visible operating field with ENDOEYE FLEX 5 mm
- Reduced “sword fighting” of hand instruments
- Natural color tone, reduced halation, and improved red color tone due to LED lamp



### Ureteroscopy

- Clear and bright visualization with enhanced image processing and videoscope technology
- Shorter operating times due to improved image quality of videoscopes<sup>1</sup>



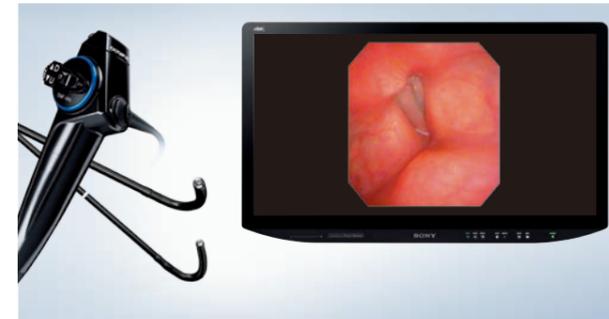
### Cystoscopy, TUR-Bt

- Narrow Band Imaging increases detection and reduces recurrence:
- NBI visualized non-muscle-invasive bladder cancer (NMIBC) lesions in an additional 17% of patients<sup>2</sup>
  - NBI visualized 24% additional tumors<sup>2</sup>
  - NBI visualized 28% additional carcinoma in situ (CIS)<sup>2</sup>



### Endoscopic Sinus Surgery

- Improved operability due to compact and lightweight camera head
- Broad covering of color gamut and enriched color reproducibility in full HD
- Improved brightness at distal point by changing the contrast setting



### Laryngoscopy

- Improved HD image quality by more natural color reproduction thanks to LED lamp
- Scope lineups with exceptional luminosity and wide field of view
- Compatible with stroboscope light source



### Arthroscopy

- Improved operability due to compact and lightweight design
- Ergonomic design offers different ways to hold and grasp the camera head

<sup>1</sup> EAU Guidelines on Urolithiasis 2017

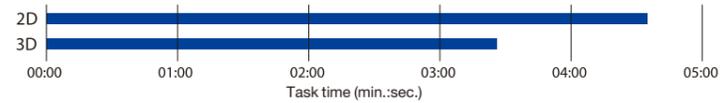
<sup>2</sup> Li K, Lin T, Fan X, et al. Diagnosis of narrow-band imaging in non-muscle-invasive bladder cancer: a systematic review and meta-analysis. Int J Urol. 2013 Jun;20(6):602-9.

# A NEW WORLD OF 3D

The Olympus 3D imaging solution offers surgeons a window to a new reality. With greater depth perception and anatomical spatial view than traditional 2D, it is proven to improve clinical outcomes.

### Improved Speed<sup>1</sup>

Average time in suturing task



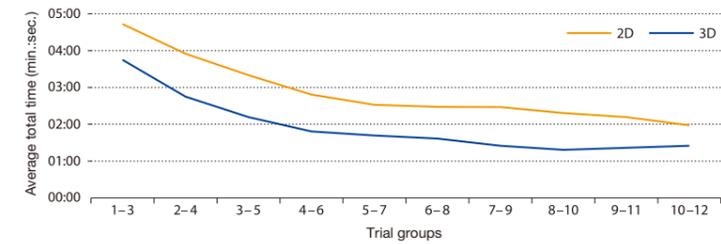
### Greater Accuracy and Precision<sup>1</sup>

Average number of errors in grasping task



### Shorter Learning Curve<sup>1</sup>

Learning curve in peg transfer task



<sup>1</sup>Singer M, Endres J, Yetasook A, et al.: Evaluation of 3-D Laparoscopy to Complete Surgical Skills Tasks. Surgical Endoscopy 27/1 (2013), 304-503.



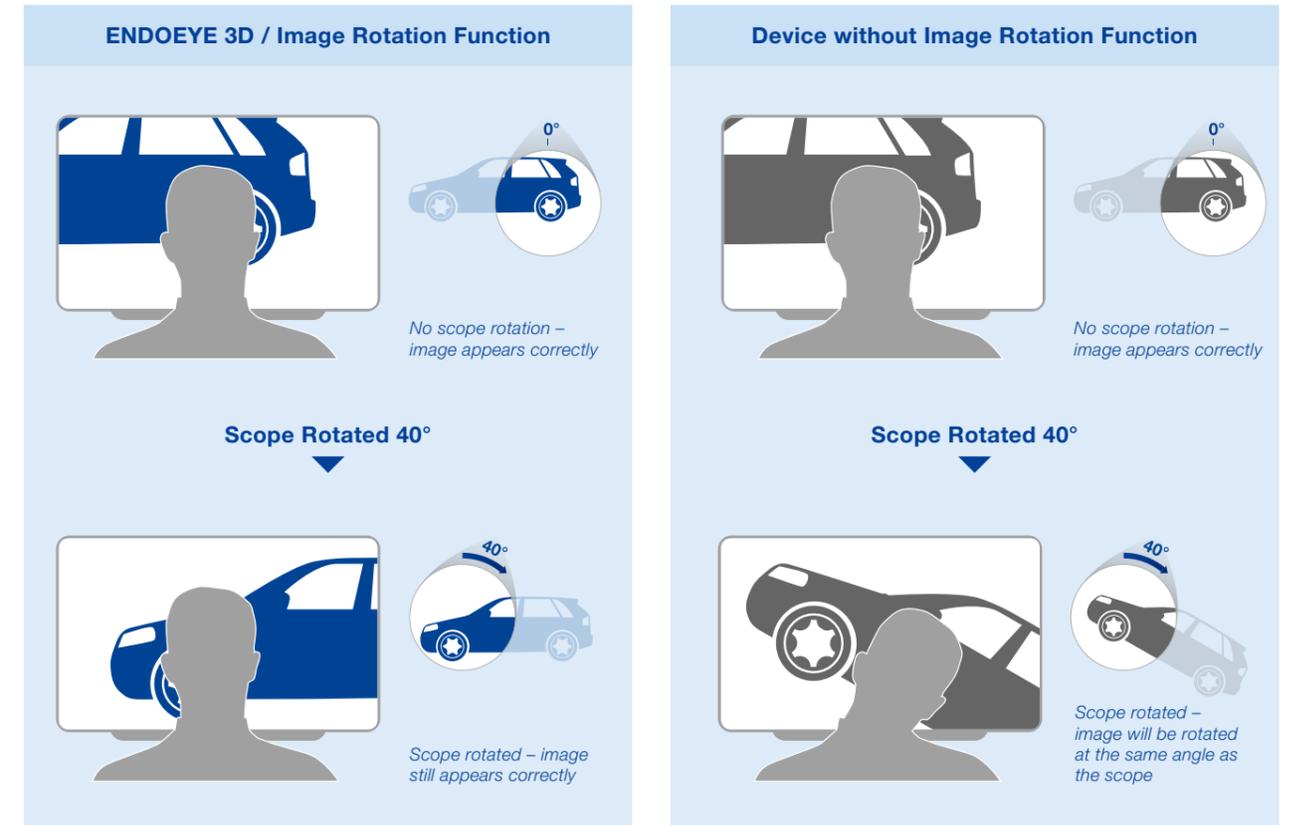
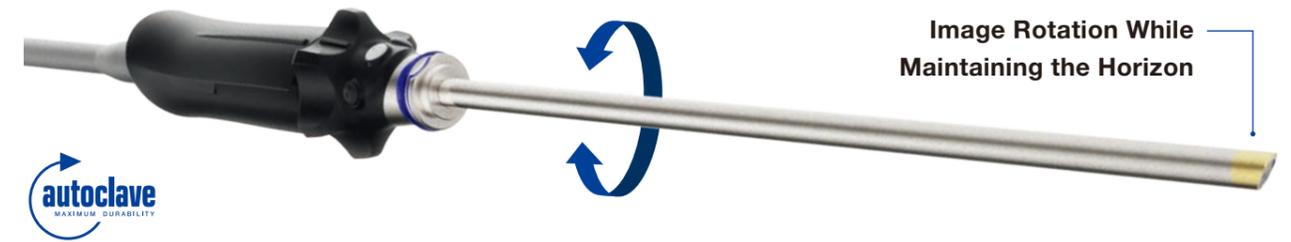
### 3D Image Rotation with the ENDOEYE 3D Laparoscope

Olympus has overcome the technical barrier of video image rotation with a 30° rigid laparoscope. This allows correct orientation, no matter what viewing angle is desired.

**ENDOEYE technology uses distally located image sensors to maximize the 3D benefit and offer:**

- A brighter, more light-sensitive image
- A greater depth of field
- Automatic refocusing (no need to focus manually)

### Experience the New ENDOEYE 3D



# A NEW WORLD OF OBSERVATION POSSIBILITIES

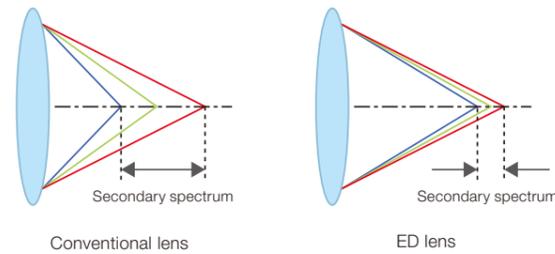
The new VISERA ELITE system offers different observation possibilities such as **Narrow Band Imaging (NBI)** or **infrared (IR) imaging**. These technologies help to improve the patient outcome during diagnostics or surgery.

## Infrared Observation with VISERA ELITE II



## Two Modes for IR Observation

Choose between observation under partial white light and IR light at the same time, and observation under only IR light, using just one switch.



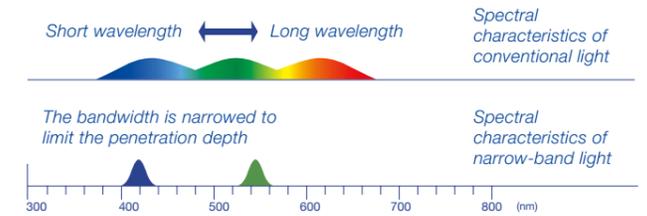
## ED Glass Lenses – Razor-Sharp Images

- Optimized for high-resolution imaging
- Decreased chromatic aberration
- High contrast at high spatial frequencies

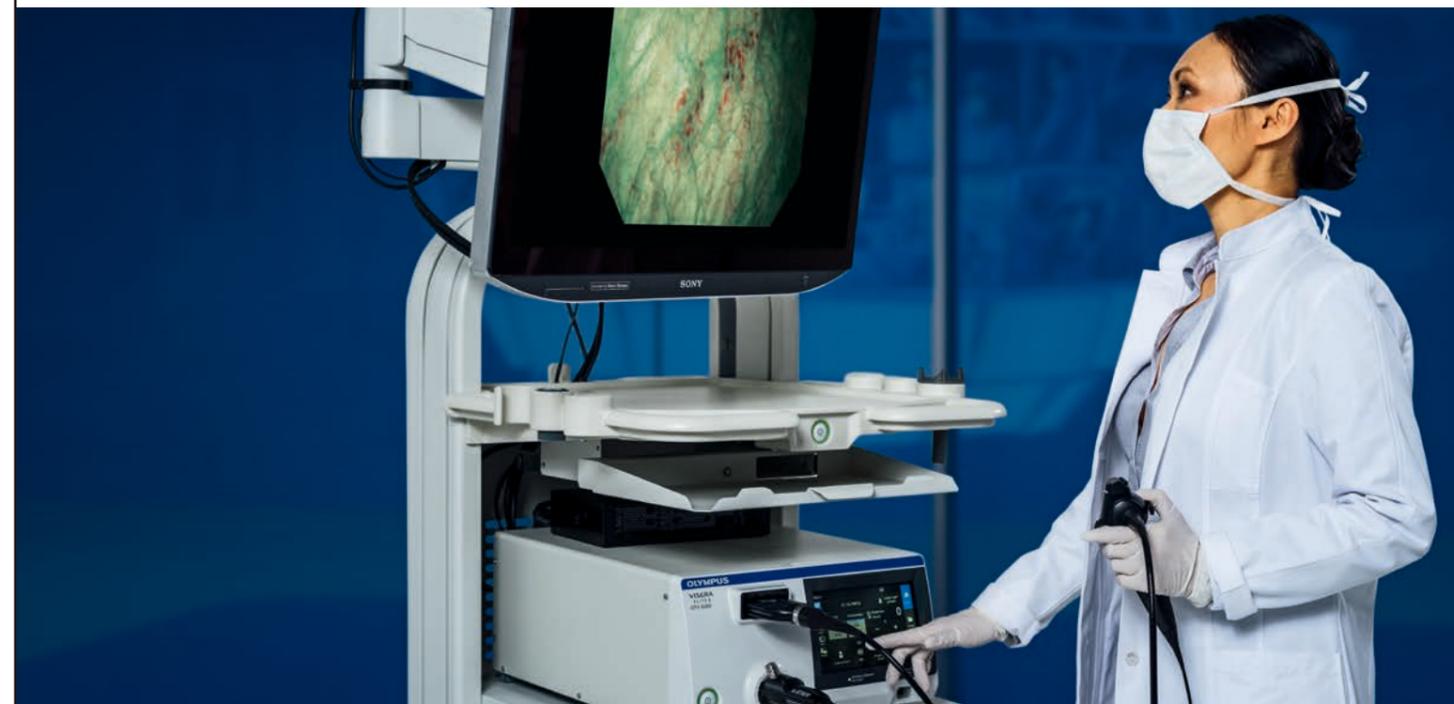
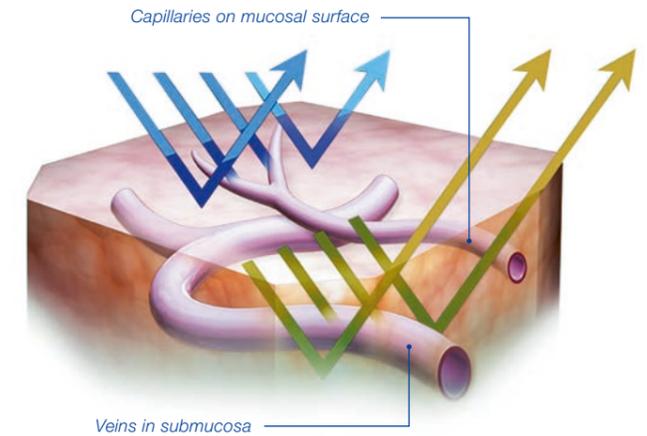
## A New Wave of Diagnostic Possibilities

Olympus Narrow Band Imaging (NBI) is an optical technology available for a variety of medical disciplines which helps to visualize the most minute vascular and mucosal patterns. A number of studies highlight the clinical value of NBI, especially with regard to the detection of cancer and characterization of suspicious mucosal areas.

## How NBI Works



- One platform throughout a hospital
- Increased quality of outcomes due to early detection of cancer and mucosal changes
- Increased accuracy, ensuring malignant lesions are not missed in urothelial cancer management
- No preparation required – technology available at the touch of a button at no extra cost
- Comprehensive training programs available for all medical disciplines



## PRODUCT OVERVIEW

### OTV-S300 – 3D Imaging System

#### All-in-One 2D/3D Processor and Light Source

- Capable of both 2D and 3D observation
- Compact system for simplified work flow

#### LCD Touch Panel

- Intuitive handling and setup
- Presets allow easy preparation and maintenance

#### LED Light Source

- Reduction in running costs thanks to the long lifetime of the LEDs
- Excellent natural color reproduction with the combination of an enhanced imaging process

#### Special Light Observation

- NBI and two modes of IR observation



### OTV-S200 – 2D Imaging System

#### All-in-One 2D Processor and Light Source

- Capable of 2D observation
- Compact system for simplified work flow

#### LCD Touch Panel

- Intuitive handling and setup
- Presets allow easy preparation and maintenance

#### LED Light Source

- Reduction in running costs thanks to the long lifetime of the LEDs
- Excellent natural color reproduction with the combination of an enhanced imaging process

#### Special Light Observation

- NBI and two modes of IR observation



### ENDO-EYE 3D – 2D/3D Laparoscope

#### 3D Image Rotation without Loss of Horizon

- Change the view direction while maintaining horizontal orientation of images, enabling a continuous critical view in 3D

#### Chip-on-the-Tip Technology

- Bright, clear, and natural 3D depth perception
- Focus-free handling, no manual focusing required

#### Autoclave Compatibility

- Reduced costs compared with other sterilization methods

#### Full Control during Surgery

- Three programmable remote control buttons

#### Plug and Play

- Simple to set up and easy to use



### 3 CMOS Camera Head

#### CH-S200-XZ-EA/CH-S200-XZ-EB

#### 3 CMOS Sensor

- Broad covering of color gamut and enriched color reproducibility in full HD

#### Special Light Observation

- Select NBI and two modes of IR observation using only one remote button

#### Small Compact Design and Light Weight

- Offers an easy fit in the hand and good maneuverability

#### 2x Optical Focus Zoom

- Magnified observation without image quality deterioration

#### Fiber Mode

- Prevents the moiré effect caused by the combination of camera head and flexible or semirigid scope



CH-S200-XZ-EA



CH-S200-XZ-EB

## PRODUCT OVERVIEW

### CLV-S200-IR – Infrared Light Source

#### Two Modes for IR Observation

- Choose between observation under partial white light and IR light at the same time and observation under only IR light using just one switch

#### Dedicated IR Light Source

- Can be easily used in addition to white-light observation



### IR Telescopes – Infrared Telescopes

#### ED Glass Lens

- Razor-sharp images
- Optimized for high-resolution imaging
- Decreased chromatic aberration
- Wide field of view

#### Infrared Imaging

- Incorporates design elements for IR imaging (e.g. lens coating)

#### Autoclave Compatibility

- Reduced costs compared with other sterilization methods



### LMD-X550S/LMD-X310S – 4K/3D LCD Monitor

- High resolution and wide color gamut
- 4K upscaling function realizes higher resolution
- Higher contrast with less color blurring
- Supports 4K resolution and a wider color gamut

#### Wide Variety of 3D Image Display Functions

- Different display settings
- Change 2D/3D observation by simply pressing button on the panel

#### High Brightness

- Provides higher brightness compared to conventional 3D monitors



### UHI-4 – High Insufflation Unit

#### Increased Maximum Flow Rate of 45L per Minute

- Display mode provides clear visualization of pressure, flow rate, and volume in real time

#### Automatic Smoke Evacuation

- Helps to provide clear and unobstructed view during laparoscopic procedures



### IMH-20 – Image Management Hub

#### Two-Channel, Simultaneous Recording

- Attach two cameras/scopes to record images from two sources at the same time

#### Still and Video Image Recording

- No degradation in image quality

#### LCD Touch Panel

- Intuitive handling and setup
- Presets allow easy staff rotation and training

#### Compatible with All Olympus Systems

- Saves time and costs



### ENDOALPHA – 3D and 4K OR Integration

#### Simple and Intuitive Video Management

- Integrates devices inside and outside the OR
- SmartGuide navigation reduces setup time and training
- SceneSelection for easy preset and procedure selection
- Share and record images and videos





Specifications, design and accessories are subject to change without any notice or obligation on the part of the manufacturer.



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