OLYMPUS

VISERA ELITE II

Beyond Vision

A New World of Possibilities

16208

Introducing VISERA ELITE II

Beyond Vision – Striving for Improved Quality in Patient Care

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

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

Increased Cost-Efficiency
by reducing costs and the risk of complications.

Simplified OR Workflows
by enhancing usability and handling of OR equipment.

Optimized Versatility
by offering a clinical solution for each medical specialty.

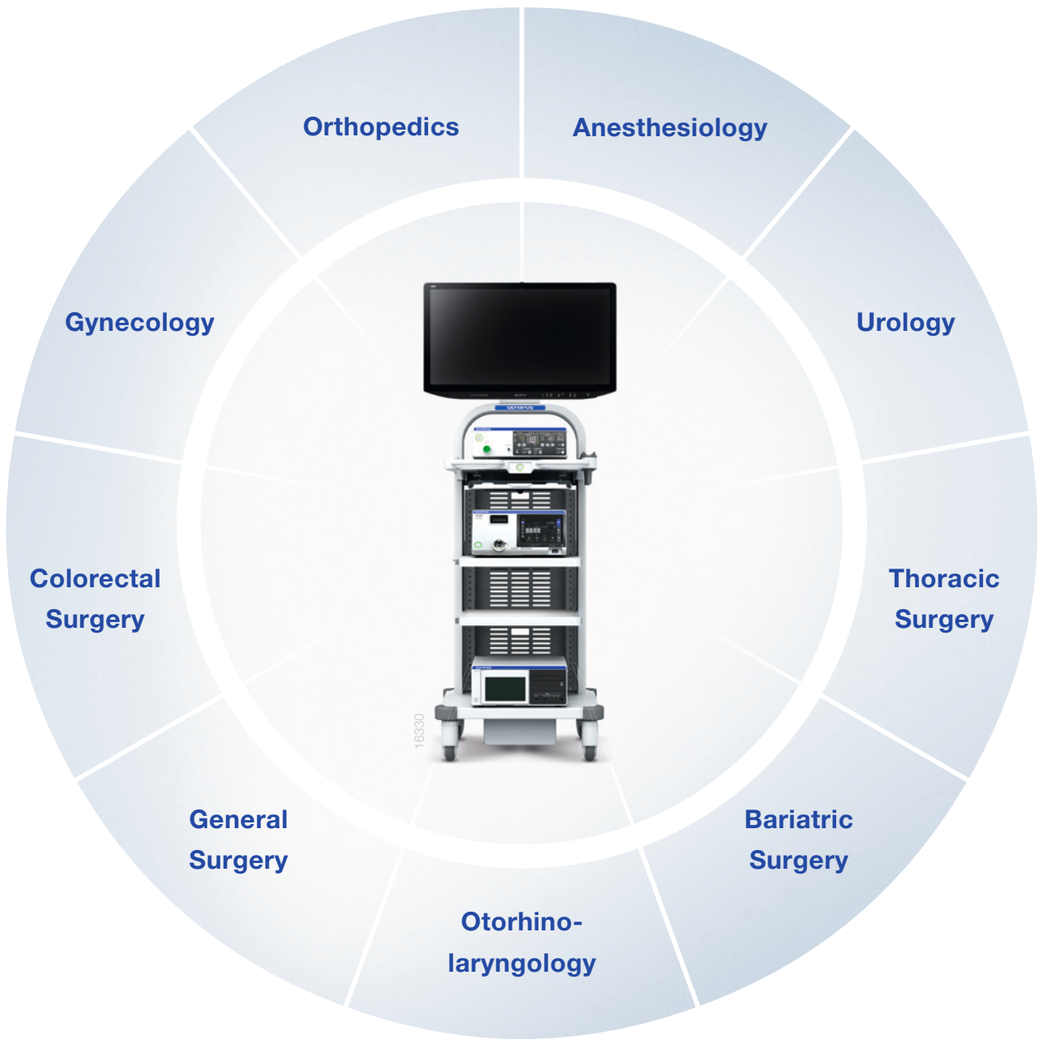
Improved Patient Outcomes
by developing and enhancing observation methods and technologies.

16346

A New World of Versatility

Possibilities for a Whole World of Surgical Specialties

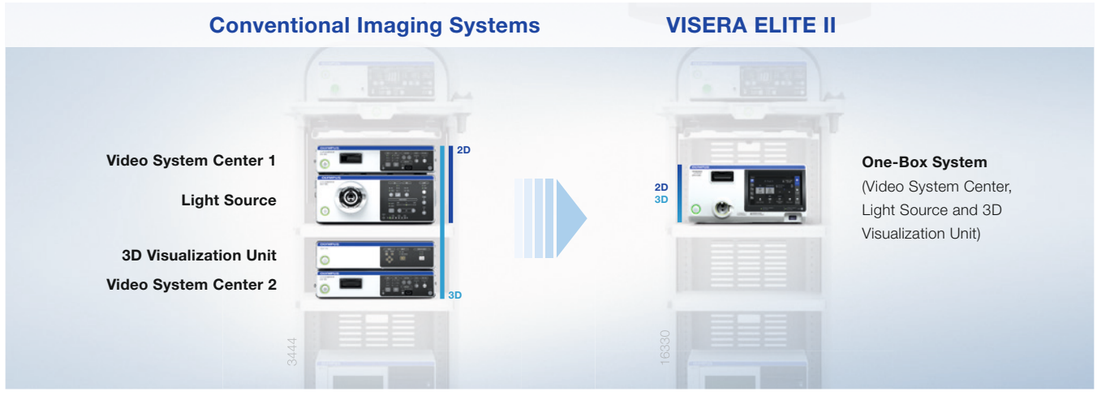
Today's ORs are multifunctional, supporting a range of surgical specialties. That's why VISERA ELITE II is fully flexible to meet the demands of any surgical procedure. It is an imaging platform for general surgery, for urology, for gynecology, for ENT, and more, that links the OR to other devices and 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.



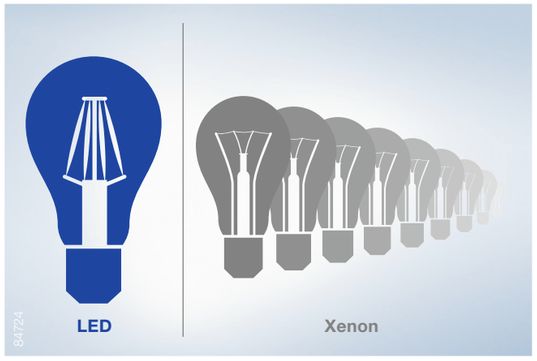
Intuitive Handling and Easy Setup

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

- LCD touch screen with intuitive icons that are immediately familiar.
- Settings that can be saved and loaded for customized use.
- Easy staff rotation and training.

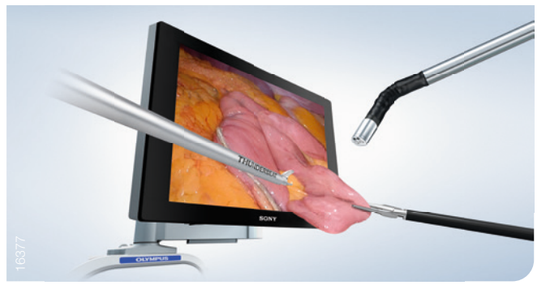
Long-Lifetime LED Bulb

- Reduction in running costs thanks to fewer bulb changes.
- Excellent natural color reproduction with the combination of an enhanced imaging process.



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

- Scope lineup optimized for clinical needs of each procedure.
- Exceptional 3D perception and brilliant image quality.
- 3D image rotation while maintaining the horizon with 30° rigid ENDOEYE.

2D Laparoscopy

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

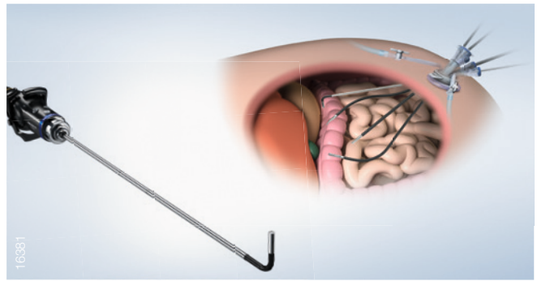
Cystoscopy-TURBT

Narrow Band Imaging increases detection and reduces recurrence:

- NBI visualized non-muscle-invasive bladder cancer (NMIBC) lesions in an additional 17% of patients.[2]
- NBI visualized 24% additional tumors.[2]
- NBI visualized 28% additional carcinoma in situ (CIS).[2]

Endoscopic Sinus Surgery

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

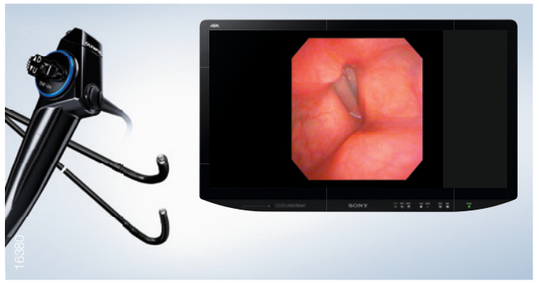


Laparo-Endoscopic Single-Site Surgery

- More visible operating field with ENDOEYE FLEX 5 mm.
- Reduced “sword fighting” of handheld 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.[1]



Laryngoscopy

- Improved HD image quality through more natural color reproduction thanks to LED lamp.
- Scope lineups with exceptional luminosity and wide field of view.
- Compatibility 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.

[1] EAU Guidelines on Urolithiasis 2017

[2] 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.

Clinical images on these pages made with VISERA ELITE and VISERA 4K UHD (for endoscopic sinus surgery)

3D Becomes Standard with VISERA ELITE II

VISERA ELITE II is an integrated 2D and 3D surgical imaging platform with an increased performance for 3D observation.

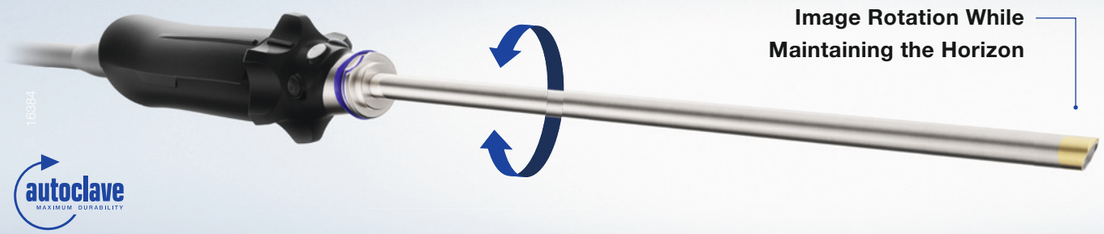
All-in-One Box Equipped with 3D Standard
The new processor (OTV-S300) provides 3D and 2D technology as standard. By enabling 3D visualization with only one processor, the system becomes very compact and therefore reduces the costs of initial investment.

Improvement of Image Quality with Four LEDs as a Light Source
The VISERA ELITE II light source consists of four LEDs, one for each color (red, green, blue and violet). The light intensity and wavelength of every LED is customized to achieve the same brightness and color reproduction of a xenon light source.

16238

The ENDOEYE Videoscope Lineup – Optimized for Clinical Needs

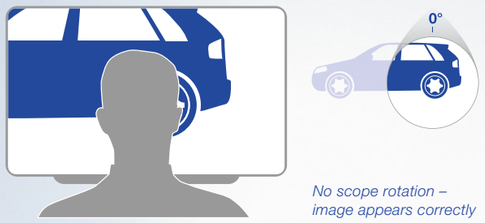
ENDOEYE 3D – Beneficial in Narrow Cavaties



3D Image Rotation

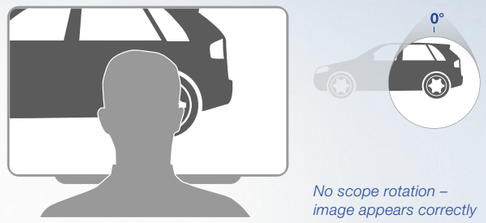
Olympus has overcome the technical barrier of video image rotation with a 30° rigid laparoscope. This allows correct orientation – no matter what viewing angle is desired.

ENDOEYE 3D / Image Rotation Function



No scope rotation – image appears correctly

Device without Image Rotation Function

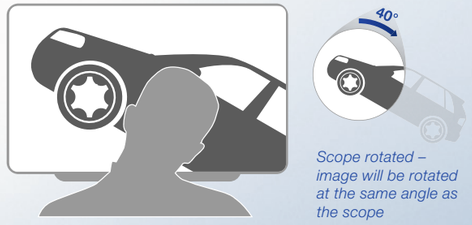


No scope rotation – image appears correctly

Scope Rotated 40°

Scope rotated – image still appears correctly

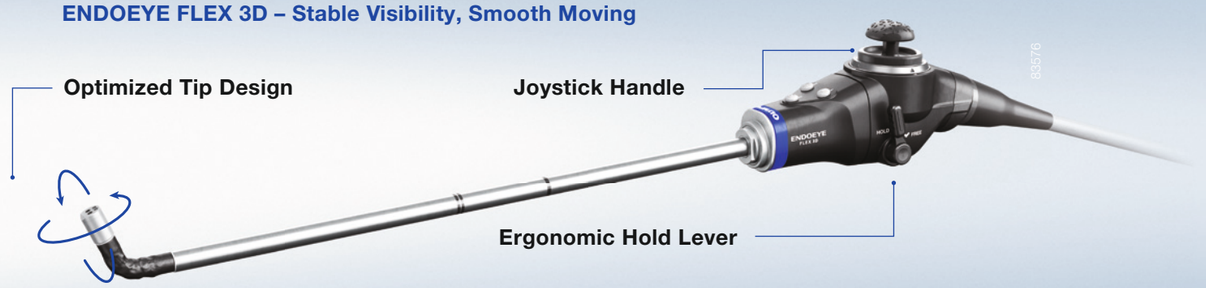
Scope Rotated 40°



Scope rotated – image will be rotated at the same angle as the scope

16384

ENDOEYE FLEX 3D – Stable Visibility, Smooth Moving

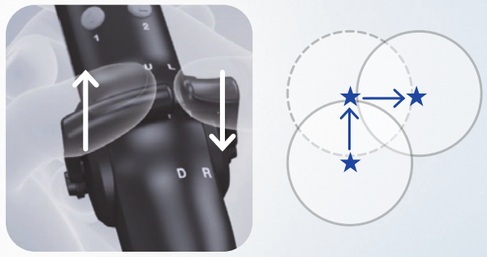


Joystick Handle for Intuitive Operation – Easy to Follow the Field of View

The new ENDOEYE FLEX 3D uses a joystick to shift the field of view smoothly to the desired location in a single action compared with the conventional two-lever mechanism. This allows surgeons to obtain the best viewing angle quickly while also making it easy to track movements in the organ being viewed.

The New Model (LTF-S300-10-3D)
One-step action

The Current Model (LTF-190-10-3D)
Two-step action



Shortened Tip Length for Narrow Cavities

By shortening the tip, it becomes easier to maintain a distance in a narrow cavity, which helps mitigate interference with forceps, residue on the scope, and 3D sickness. In particular, observation performance will be improved around the rectum, VATS, pelvic cavity, retroperitoneal approach to urology, etc.

A New World of Observation Possibilities

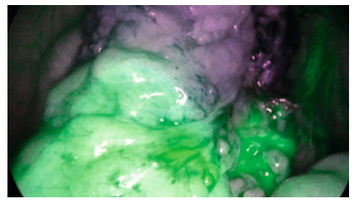
The new VISERA ELITE system offers different observation possibilities such as Narrow Band Imaging (NBI) and infrared (IR) imaging. These technologies help to improve the patient outcome during diagnostics and surgery.

Infrared Observation

The Olympus IR system offers two different IR modes in addition to the white-light mode.

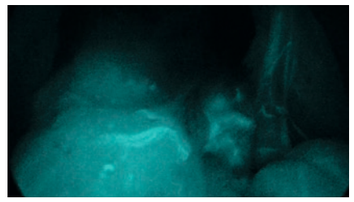
White-Light Image

IR Mode 1

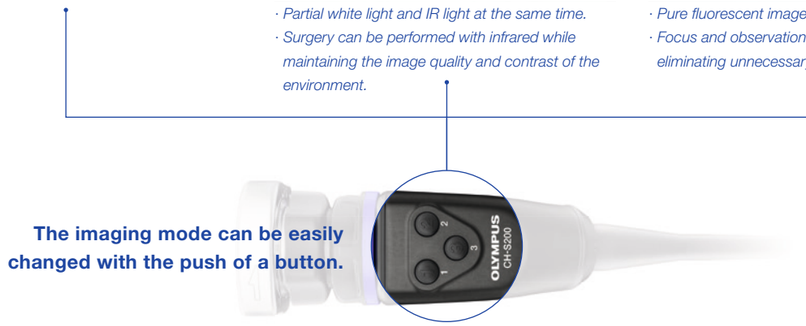


· Partial white light and IR light at the same time.
· Surgery can be performed with infrared while maintaining the image quality and contrast of the environment.

IR Mode 2



· Pure fluorescent image.
· Focus and observation of the target area while eliminating unnecessary information.



The imaging mode can be easily changed with the push of a button.

The VISERA ELITE II is a next-generation system that uses components other than the light source and the telescope in common with the normal observation system. IR observation is possible just by adding a dedicated light source and telescopes. The new dedicated IR telescope provides an image optimized for IR transmission with an ED lens.

VISERA ELITE II
Common Components

+

IR Observation Components

Dedicated IR xenon light source

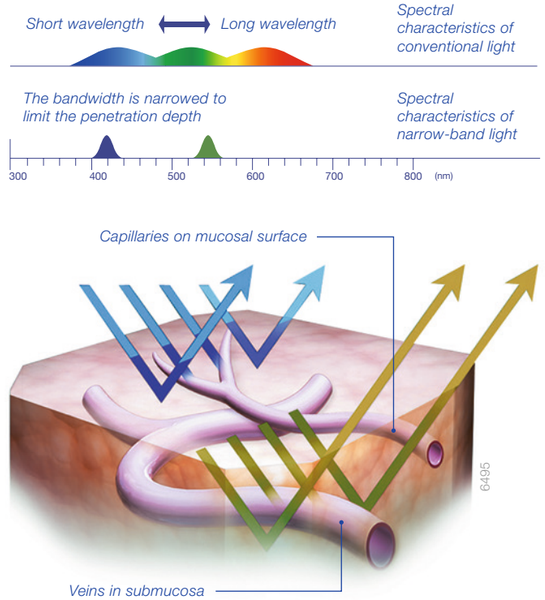
Dedicated IR telescopes
(0°/30°, 10 mm/5 mm)

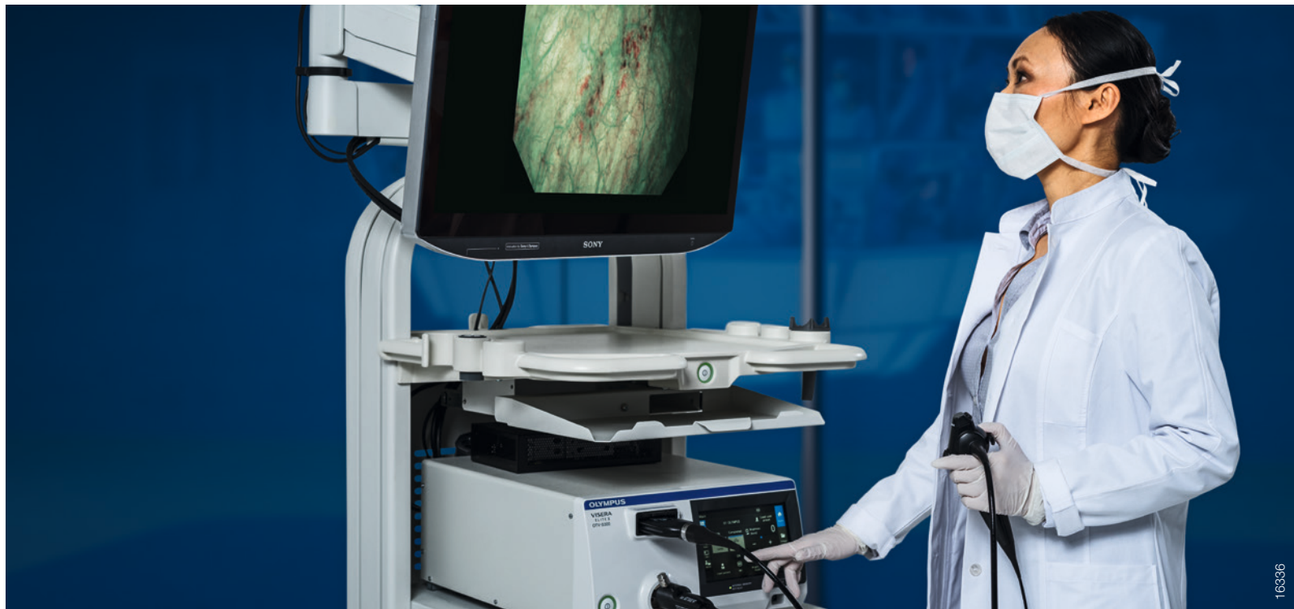
Narrow Band Imaging

Olympus Narrow Band Imaging (NBI) is an optical technology available for a variety of medical disciplines that 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.

· 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.

How NBI Works





Product Overview

OTV-S300 – 3D Imaging System

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

· Both 2D and 3D observation capability.
· Compact system for simplified workflow.

LCD Touch Panel

· Intuitive handling and setup.
· Presets allow easy preparation and maintenance.

LED Light Source

· Reduction in running costs thanks to the long life 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

· 2D observation capability.
· Compact system for simplified workflow.

LCD Touch Panel

· Intuitive handling and setup.
· Presets allow easy preparation and maintenance.

LED Light Source

· Reduction in running costs thanks to the long life of the LEDs.
· Excellent natural color reproduction combined with an enhanced imaging process.

Special Light Observation

· NBI and two modes of IR observation.

ENDOEYE 3D – 2D/3D Laparoscope

3D Image Rotation without Loss of Horizon

· Change of 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.

ENDOEYE FLEX 3D – 2D/3D Laparoscope

Joystick Handle

· Intuitive and smooth angulation.
· Ergonomic design enables stable and customized handling with both hands or one hand.

Shortened Tip Length

· Better approachability inside narrow cavities.

New Hold-Lever Design

· Comfortable and smooth handling.

Focus-Free Handling

· Greater depth of field.
· The need for manual focusing is eliminated.

Product Overview

CH-S200-XZ-EA/EB – 3 CMOS Camera Head

3 CMOS Sensor

· Broad coverage of the 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 Lightweight

· Offers an easy fit in the hand and good maneuverability.

2× Optical Focus Zoom

· Magnified observation without image quality deterioration.

Fiber Mode

· Prevents the moiré effect caused by the combination of a camera head and flexible or semirigid scope.

CH-S200-XZ-EA

CH-S200-XZ-EB

IR Telescopes – Infrared Telescopes (0°/30°, 10 mm/5 mm)

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.

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.

UHI-4 – High Insufflation Unit

Increased Maximum Flow Rate of 45 L 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.

nCare Medical Recorder

Secure and Intuitive Design to Support Health Care Teams

· nCare is a connected medical recorder that captures Full HD images and videos from up to two surgical devices simultaneously.
· nCare easily, reliably, and securely connects clinicians with the critical visual information they need at all times.
· The user-friendly solution can fit nearly anywhere, from an endoscopic cart to an equipment boom.

Product Overview

LMD-X550ST/LMD-X310ST – 4K/3D LCD Monitor

· High resolution and wide color gamut.
· 4K upscaling function produces higher resolution.
· Higher contrast with less color blurring.
· 4K resolution and a wider color gamut.

Wide Variety of 3D Image Display Functions

· Different display settings.
· 2D/3D observation changed by simply pressing a button on the panel.

High Brightness

· Provides higher brightness compared to conventional 3D monitors.

ENDOALPHA – 3D and 4K OR Integration

Simple and Intuitive Video Management

· Integration of devices inside and outside the OR.
· SmartGuide navigation reduces set-up time and training.
· SceneSelection for easy preset and procedure selection.
· Sharing and recording of images and videos.

Beyond Vision

S00123EN · 01/20 · OEKG

Olympus reserves the right of errors, modification and changes of the service and/or product offerings.

OLYMPUS

OLYMPUS EUROPA SE & CO. KG
Postbox 10 49 08, 20034 Hamburg, Germany
Wendenstrasse 14-18, 20097 Hamburg, Germany
Phone: +49 40 23773-0, Fax: +49 40 233765
www.olympus-europa.com