



Your Vision, Our Future

June 29, 2017

Launch of 3D Surgical Endoscope Supporting Faster and More Precise Surgery Designed for Use with VISERA ELITE II System Featuring World-First¹ Proprietary Mechanism for Rich 3D Imaging

with Same Ease-of-Use as Conventional 2D Products

Olympus Corporation (President: Hiroyuki Sasa) today announced the ENDOEYE 3D video telescope that supports faster and more precise endoscopic surgery by using 3D imaging to facilitate depth perception. The new product will be launched at the end of June 2017 in Japan.

As a minimally invasive surgical practice that enables rapid recovery with less of a burden on the patient, endoscopic surgery in Japan has grown drastically since the 1990s. In recent years, it also has been adopted for difficult procedures such as colectomy and gastrectomy that require a high degree of skill. These are procedures where depth perception is vital for ensuring safe and trouble-free surgery.

ENDOEYE 3D is a 3D surgical endoscope that is used in conjunction with the VISERA ELITE II surgical endoscope system launched in March 2017. Its 3D imaging helps make endoscopic surgery faster and more precise by overcoming the difficulties with depth perception that occur when viewing internal organs on flat 2D images. It has also been designed for easier use, with the ability to maintain image orientation when the endoscope is rotated.

Olympus's previous 3D endoscope system² required two video system centers, a 3D video processor, and a light source. In contrast, this new product can achieve 3D imaging by connecting to the VISERA ELITE II's single video system center that consolidates all of these functions in one box. This reduction in the number of devices makes the product easier for medical staff to handle and also reduces the initial investment cost.

In addition to 3D, VISERA ELITE II supports a wide variety of imaging modalities including IR³, 2D, and NBI⁴. It also has extensive compatibility with various camera heads and videoscopes and this helps realize efficient system operation at hospitals because it serves as a universal surgical platform.

1: As of June 29, 2017, a rigid video telescope with dual lens system

2: Launched in April 2013 3: Infra-red 4: Narrow band imaging

Launch Overview

Name	Launch Date
ENDOEYE 3D video telescope	The end of June 2017 5

5: Previously launched in Europe and parts of Asia in January 2017.

Main Features

1. 3D imaging facilitates depth perception supporting faster and more precise surgery

3D imaging helps improve surgical precision and reduce operation time by overcoming the difficulties with depth perception that occur when viewing internal organs using flat 2D images. It does this by, for example, providing a clear indication of needle orientation to assist with needle insertion accuracy when suturing. Moreover, the two high-resolution CCD image sensors fitted at the videoscope tip provide rich 3D images with high definition.

2. Ability to maintain image orientation on monitor when the endoscope is rotated

It is important to maintain ease of viewing during endoscopic surgery by repositioning or rotating

the endoscope. Despite using two tip CCDs, the new model features a proprietary mechanism that keeps the image orientation on the monitor the same even when the endoscope is rotated. This world-first technique provides rich 3D imaging with the same operational feel as conventional 2D models.



ENDOEYE 3D video telescope

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