

Smart and Safe

ENDOCAPSULE 10



ENDOCAPSULE 10 SYSTEM – MORE THAN JUST A CAPSULE

Smart Algorithm – Omni Mode Accelerates Reading




Cut reading time drastically while seeing everything of importance for the diagnosis. Out of thousands of images only those that are most relevant for your diagnosis are displayed. This helps to save up to 64%* time during your reading process without compromising the diagnostic result.

* Hosoe et al. Endosc Int Open 2016, DOI: 10.1055/s-0042-111389

Safe Detection – Excellent Reading Reliability

Detection

→ Normal Mode

 Omni Mode

Precise reading results with high confidence. Omni Mode ensures every displayed area is shown, yet without duplication. It reliably differentiates between minute changes and whether only the angle of depiction has shifted. This supports a safe detection process.



The ENDOCAPSULE 10 SYSTEM reflects our vast experience in opto-digital technology for endoscopes. This small-intestine endoscope system produces extremely high-quality images for fast, efficient, and precise examinations that you can trust — the ideal solution for medical institutions looking to expand diagnostic capabilities in this critical field.

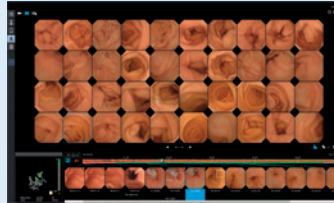
OLYMPUS endoscopic imaging technology makes diagnosis easier than ever thanks to high-quality images along with elevated usability and efficiency, all of which are hallmarks of our continually evolving advancements in the field of endoscopy.

Trusted Visualization
for Detailed Observations



Olympus' trusted opto-digital technology results in improved high-quality images and a wide angle of view aiming at improving observations and diagnosis.

Trusted Efficiency
for Stable Operations



Feature-rich and highly intuitive, Olympus software is the advanced solution for fast, efficient analysis of small-intestine examinations.

Trusted Usability
for Streamlined Workflows



Trust Olympus to fully support you and your patients through a new all-in-one recorder, a more convenient antenna, and functional reporting features.

HIGH-QUALITY IMAGES FOR GREATER DETAIL

Trusted Visualization
for Detailed Observations

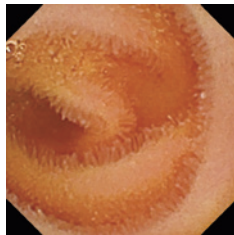
As the undisputed leader in the field of endoscopy, Olympus is renowned for exceptionally high-quality images. This translates into easier analysis for more reliable and consistent diagnosis than ever before. You will also appreciate the expanded angle of view, which makes it less likely to miss abnormalities.

High-Quality Images

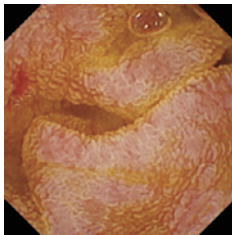
Advanced Olympus optical technology delivers high-quality images that reveal individual villi. Noise has been markedly reduced along with halation, optimizing brightness levels for the detailed observation of small-intestine mucosa and the identification of abnormalities. The clear visual information facilitates accurate diagnosis.



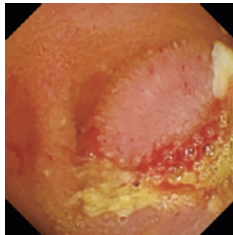
Normal



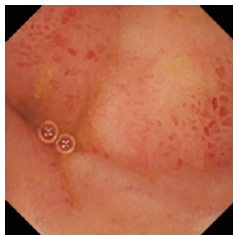
Observable Findings



Angioma
(no bleeding)

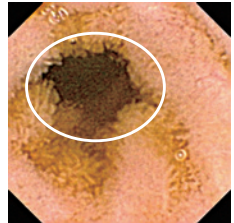


Angioma
(bleeding)

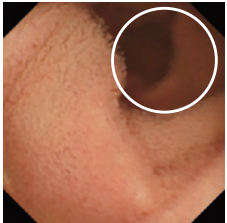


Multiple inflammations with
Crohn disease stenosis

Less Noise

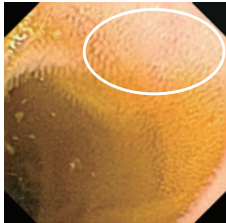


Previous model



EC-S10

Less Halation



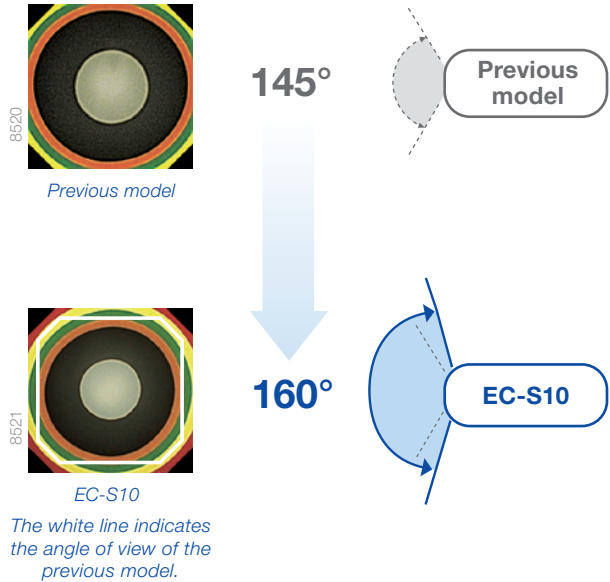
Previous model



EC-S10

Wide Angle of View

Another advancement made possible by renowned Olympus optical technology is the expanded angle of view: 160° as opposed to 145° on the previous model. This wider coverage offers a significantly enhanced field of observation for refined examinations.



Longer Observation Time

Battery life has been extended from eight hours to twelve hours to considerably increase the proportion of completed small-intestine observations. The long observation time maximizes the detection rate of lesions for more reliable diagnosis.

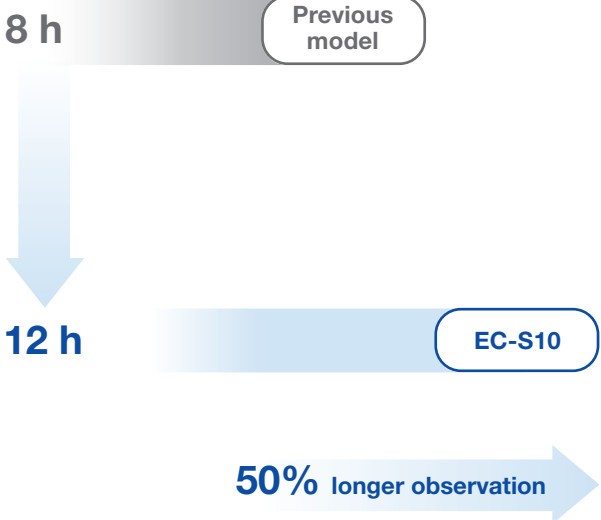
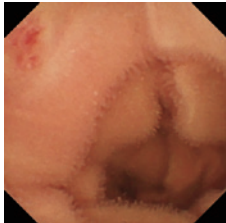


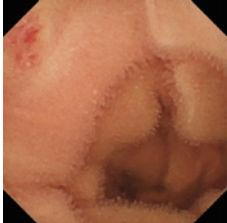
Image Adjustment Function

Eight user-selectable sharpness settings let you optimize image enhancement in order to observe tiny mucosal architecture clearly. You can also adjust color tone (red/blue) and brightness levels for more comfortable viewing in the color of your choice.

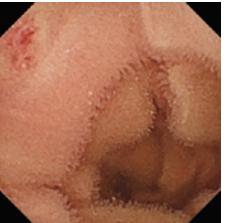
Structure Enhancement



Level 1

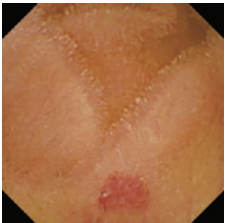


Level 3

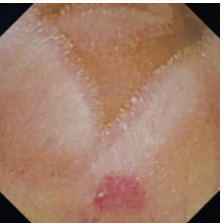


Level 8

Color Tone



Red 0 / Blue 0



Red -3 / Blue +3

INTELLIGENT READING FUNCTIONS SIMPLIFY ANALYSIS

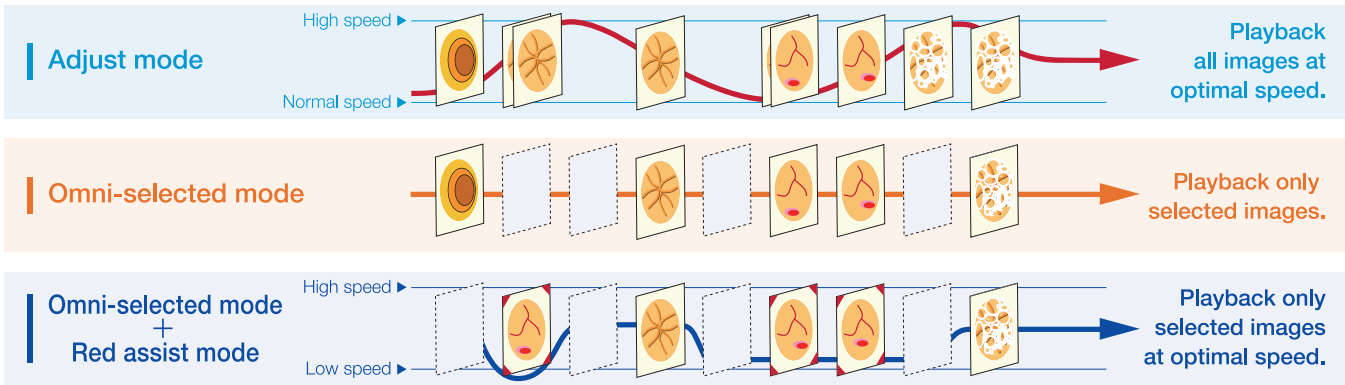
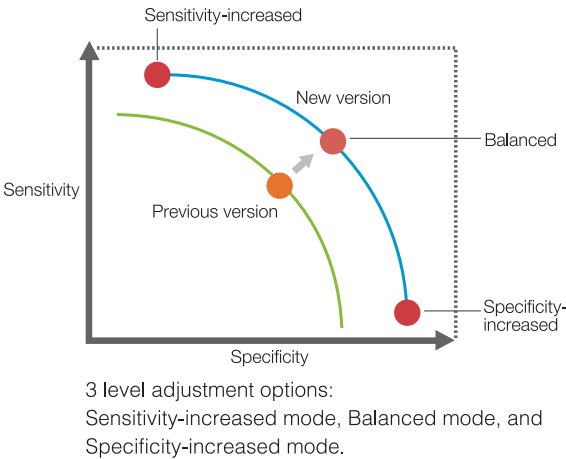
Trusted Efficiency
for Stable Operations

ENDOCAPSULE 10 SYSTEM software facilitates reading with a variety of unique functions to detect images requiring closer inspection, providing the means for the fast reviewing of results to ultimately speed up diagnosis.



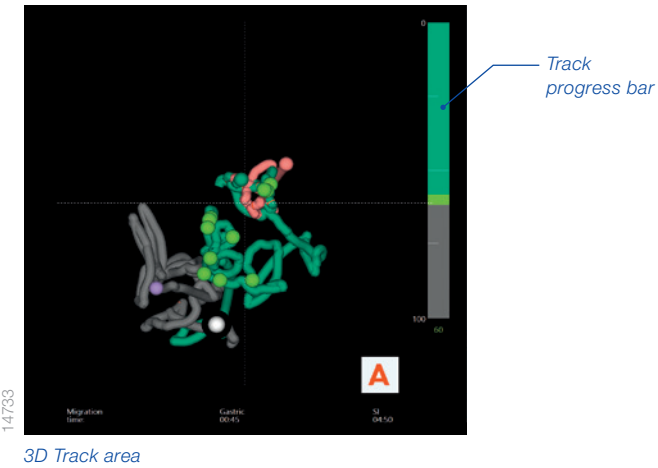
Red Color Detection

The new Red Color Detection is designed to identify individual images that are suspected of containing an active bleed, angioectasia, red spots, ulcers or erosions. It includes a 3 level adjustment option which allows the user to select the balance between sensitivity and specificity. Performance of the Red Color Detection, including the sensitivity and/or the specificity at each level, is improved when compared to previous versions of the software. The detection performance for active bleeds at each level achieves 100%, which has been verified in the internal bench testing.



3D Track Function

Track the capsule as it moves through the small intestine with the 3D Track function. A high-precision antenna recognizes the detailed signals from the capsule, allowing the system to display the capsule track in 3D. The track progress bar is useful for estimating capsule location in the small intestine. It also indicates on the 3D tracking screen where each thumbnail image was captured in order to assess the locations of abnormalities. The 3D Track function operates intuitively, showing capsule location to help you decide what approach should be taken for subsequent procedures.



Overview Function

This function displays a library of characteristic images. The new Adjacent image display and Enlarging image functions provide a quick way for further observation without having to switch to Playback view mode. In addition, the new Red color overview function gives you a quick overview only of images showing an excessive amount of red.

Bubble and Debris Image Detection Algorithm

Bubbles and debris can sometimes adhere to the capsule and degrade image quality. The ENDOCAPSULE 10 SYSTEM automatically detects poor-quality images and displays only those that can be accurately read. This algorithm also enhances the performance of Adjust mode and the Overview function.

Adjust Mode

Change playback speed depending on differences in images. In Adjust mode, images showing no change are superimposed on each other, and review speed is optimized to move quickly past images indicating no characteristic differences compared to preceding images. This mode vastly reduces playback time to increase reading effectiveness.

Red assist mode

Playback speed slows down at the first image detected by the new Red Color Detection and is automatically adjusted according to the number of successive red lesion images displayed. The fewer the number of red lesions detected, the slower the playback speed will be. During image playback, red color notifications will appear in the corners of each image that has been identified by the Red Color Detection. Red assist can be used with Normal mode and Omni-selected mode. When Red assist is used with Omni-selected mode, images detected by the Red Color Detection as well as those selected by Omni mode will be displayed.

Omni -selected Mode

Images that overlap with previous ones are skipped, and new images are selected even when only minute changes are present. This algorithm can recognize that an image is identical, even when the capsule is displaying the same section of small intestine from a different angle. This intelligent approach helps to speed up diagnosis by analyzing a larger number of attributes than ever before.*

* Compared to ENDOCAPSULE 10 SYSTEM Express-selected mode

IMPROVED DESIGN FOR MEDICAL STAFF AND PATIENTS

Trusted Usability
for Streamlined Workflows

Considering the needs of medical personnel and patients, the ENDOCAPSULE 10 SYSTEM is designed to increase clinical performance as well as ease of use and mobility. The all-in-one recorder and belt-style antenna simplify procedures, making for a smooth and relaxed examination environment.

Belt-Style Antenna Unit

Preparation times are markedly reduced thanks to the slim, lightweight antenna unit, which is incorporated in the belt harness. The unit can be worn over light clothing, and offers more sensitive detection capability compared to the previous model while enhancing patient comfort.

Smart Recorder

The recorder combines a receiver and viewer in a compact and easy-to-handle unit, allowing you to play back and capture images any time during the procedure. The recorder is rechargeable, and comes with a charging cradle. Just place the unit in the cradle to recharge.



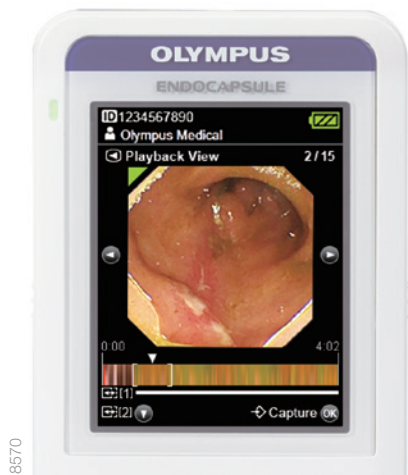
Real-Time View/Capture

Confirm capsule location during the entire procedure from images displayed in real time. Monitoring the capsule's progress in real time lets you uncover any anomalies, such as bleeding, and take immediate action if needed.



Playback/Capture

Check images of the small intestine as the capsule passes through it. Images of interest can be captured and then downloaded to a workstation for further review.



Captured Images Screen

Up to 15 captured images can be displayed as thumbnails, making it easy to quickly find suspected anomalies and further speeding up observation procedures.

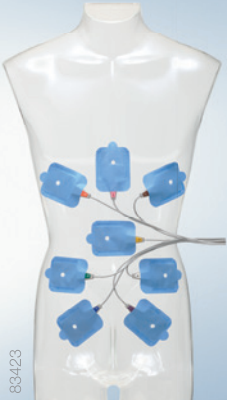


Patient Guidance Function

Personalized instructions for each patient can be displayed by registering data. Instructions are delivered as text messages preceded by beep and vibration alerts. The messages direct patient activity, such as eating, drinking water, and returning to the hospital. Making it easy for patients to follow correct procedures helps you conduct safer, more accurate examinations.

Lead-Type Antenna

- Options for various body type of patient
- New shape cable with clearance
- Can be soaked into neutral detergent



Guidance Example

- 0:00 Ingest capsule
- 0:30 "Please come back to procedure room."
- 2:00 "You can drink water from now."
- 4:00 "You can take a light meal from now."
- 8:00 "Please come back to the hospital."



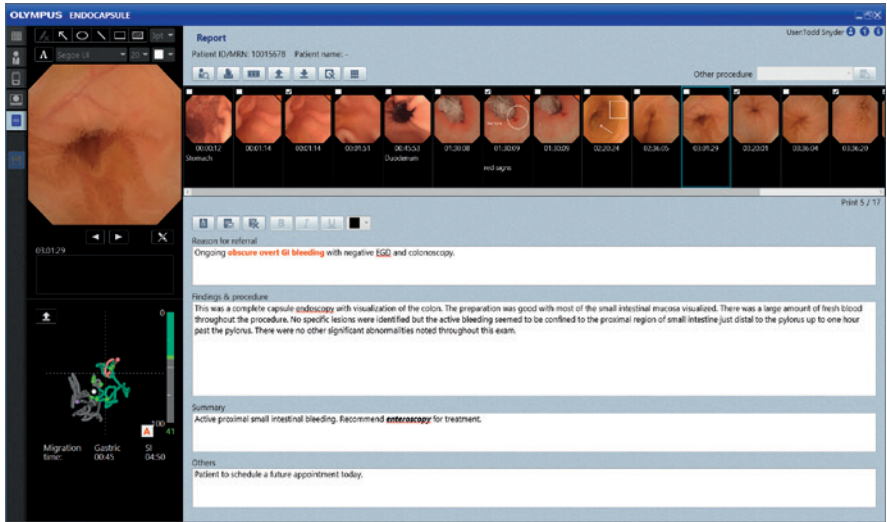
DATA MANAGEMENT MADE EASY –
EFFORTLESSLY SHARE RESULTS AND CREATE REPORTS

Trusted Usability
for Streamlined Workflows

The ENDOCAPSULE 10 SYSTEM includes several intuitive report templates to further streamline examinations, analysis, and diagnosis. Moreover, the system connects seamlessly to existing networks to facilitate the sharing of patient information when a consensus diagnosis is desired.

Report

Fast and intuitive reporting of findings is possible. You can view and annotate images without disrupting your workflow. Repeatedly used words and phrases can be recorded in the user dictionary, which reduces the time required to compile reports.



Report Template

Findings known from previous capsule examinations can be saved as report templates. If your report consists of a common diagnosis, a report template can be applied with just a few clicks, eliminating the need to write the report from scratch.

Examination Data Management

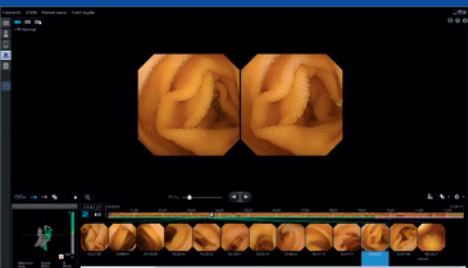
Each phase of a procedure is displayed in an easy-to-read format to visualize at a glance the status of individual examination procedures.

IMPROVEMENTS AT EVERY STEP OF THE WORKFLOW

1

Simple User Interface

The latest software generation means you need 30% less interaction with the system to complete the entire procedure.



4

Outstanding Image Quality and Maximum Detection

As you would expect from Olympus, the capsule captures images in outstanding quality, ensuring maximum detection.

5

Patient-Friendly Procedure

The belt-style antenna means patients can go about their normal daily lives. The recorder presents the patient with useful support messages throughout the examination.



6

Real-Time Decision-Making

If necessary, patients can be monitored using the real-time view of the recorder to enable an immediate decision about the follow-on procedure.

8

Significantly Reducing Reading Time While Safeguarding Detection

Omni Mode analyzes a greater number of image attributes compared to previous algorithms, meaning you are only presented with the most important clinical data during reading.



www.olympus.eu/capsule



1	Images captured by EC-10	A > > > A >
	Previous modes select more images	A > > > A >
	Omni Mode recognizes change in orientation	A

Reducing the number of images thanks to improved recognition of identity

2	Images captured by EC-10	A > > > A > B
	Previous modes select more images	A > > > A > B
	Omni Mode selects these images	A > B

Safeguarding detection through recognition of minute changes

Before the Procedure

During the Procedure

After the Procedure

2

Quick Patient Data Entry

Full ENDOBASE compatibility means that you can easily register new patients using your existing Olympus IT solution.

3

Fast Patient Setup

The belt-style antenna makes it easy to set the procedure up.



7

Complete Coverage of the Small Bowel

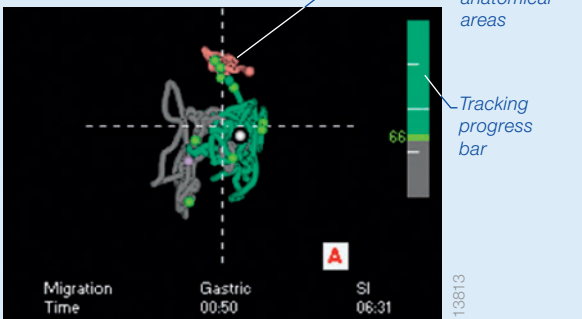
A prolonged battery life of a minimum of 12 hours considerably increases the proportion of complete examinations of the small intestine.



9

Plan Follow-on Procedures Effectively

3D tracking shows the location of the lesion within the small intestine in 3D and lets you plan the optimum approach for follow-on treatment.



3D tracking area

10

Secure Network Data Storage

Procedure data can be easily shared with satellite workstations attached to the hospital network.

11

Secure On-the-Go Reporting

ENDOCAPSULE SOFTWARE 10 LIGHT means that you can create reports when and where it suits you, without compromising on data security.

12

Reporting Design Exactly Matched to Your Needs

The reporting of findings is fast and intuitive thanks to customized report design templates. Seamless ENDOBASE integration makes reporting even faster.

13

Less Fatigue during Reading

The 16:9 HDTV software display format means you have more space to examine images and enter your findings into the system.

14

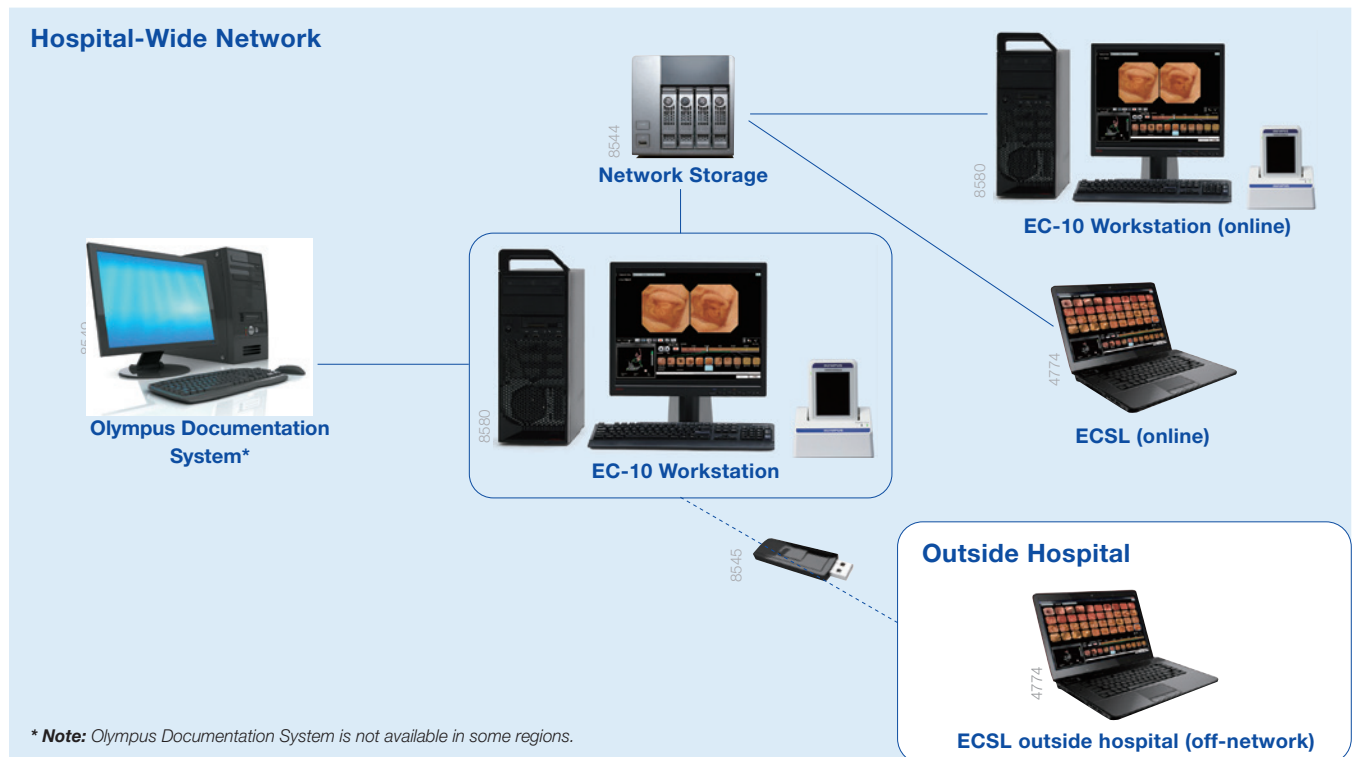
Easy Data Analysis

Intelligent export functions help you to prepare and analyze data for later presentation.

System Integration

The workstation of the ENDOCAPSULE 10 SYSTEM integrates easily into existing hospital information systems for fast and easy data sharing. All examination data for patients – including results from ENDOCAPSULE – can be managed centrally, making collaboration inside the facility easier.

Note: Network performance may vary depending on the network environment.



ENDOCAPSULE SOFTWARE 10 LIGHT

For added convenience, ENDOCAPSULE SOFTWARE 10 LIGHT gives you the ability to continue post-examination procedures even without direct access to the hospital network.



ENDOCAPSULE Atlas

Select ENDOCAPSULE Atlas from the menu to automatically open the ENDOCAPSULE Atlas website.

This gives you one-click access to a library of clinical data regarding capsule endoscopy to assist in observation in small-intestine diseases.



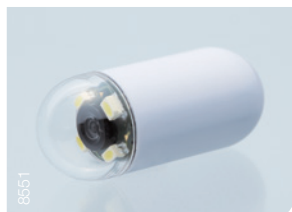
Note: Access to ENDOCAPSULE Atlas varies depending on the security policy of your network.

Specifications

ENDOCAPSULE Small Intestinal Capsule

Endoscope Set: MAJ-2027

Components	ENDOCAPSULE Small Intestinal Capsule Endoscope: Olympus EC-S10	5 pieces
-------------------	--	----------



ENDOCAPSULE Small Intestinal Capsule

Endoscope: Olympus EC-S10

Optics	Field of view	160 degrees
	Depth of field	0–20 mm
Sampling Rate		2 fps
Battery Life		12 hours
Size	Weight	3.3 g
	Dimensions	Ø 11 mm (diameter) × 26 mm (length)

Note: EC-S10 is not sold as a single product but as MAJ-2027

ENDOCAPSULE Recorder Set: MAJ-2029

Components

1. ENDOCAPSULE Recorder: Olympus RE-10	1 piece
2. Battery Pack: MAJ-2030	1 piece
3. Antenna Unit: MAJ-2031	1 piece
4. Recorder Holder: MAJ-2033	1 piece
5. Cradle: MAJ-2032	1 piece
6. Antenna Unit Holder: MAJ-2034	1 piece
7. Capsule Activator: MAJ-1478	2 pieces

ENDOCAPSULE Recorder: Olympus RE-10

Battery Life		Typ. 12 hours
Size	Weight	320 g
	Dimensions (W/H/D)	87 mm × 154 mm × 33 mm
LCD Display Size		3.5 inches

Battery Pack: MAJ-2030

Type	Lithium-ion storage cell	
Capacity	2860 mAh	
Voltage	3.7 V	
Recharging Time	Approx. 2 hours	
Size	Weight	70 g
	Dimensions (W/H/D)	70 mm × 10 mm × 55 mm (without projection parts)

Antenna Unit: MAJ-2031

Size	Weight	150 g
	Dimensions (W/H/D)	87 mm × 51 mm × 15 mm (without projection parts)

Recorder Holder: MAJ-2033

Size	Weight	110 g (incl. strap)
	Dimensions (W/H/D)	Pouch: 100 mm × 175 mm × 45 mm

LEAD ANTENNA UNIT: MAJ-2294

Size	Weight	200 g
	Dimensions (W/H/D)	87 mm × 51 mm × 15 mm (without projection parts)
	The number of antennas	8



Cradle: MAJ-2032

Power Supply	DC 6 V/2 A	
Size	Weight	Main body: 315 g
	Dimensions (W/H/D)	142 mm × 79 mm × 85 mm
Components	Cradle, AC adapter, AC cable, USB cable	

Antenna Unit Holder: MAJ-2034

Size	Weight	190 g
	Dimensions	Pouch: 340 mm (W) × 160 mm (H) × 15 mm (D) Long belt: 50 mm (W) × 1000 mm (L) Short belt: 50 mm (W) × 700 mm (L)

ENDOCAPSULE SOFTWARE 10: MAJ-2188

Components	ENDOCAPSULE SOFTWARE 10 (DVD-R)	1 piece
-------------------	---------------------------------	---------

ENDOCAPSULE SOFTWARE 10 LIGHT: MAJ-2189

Components	ENDOCAPSULE SOFTWARE 10 LIGHT (DVD-R)	1 piece
-------------------	---------------------------------------	---------

ANTENNA LEAD COVER: MAJ-1470

Size	Dimensions (W/H)	92 mm × 66 mm
	Quantity	50 sheets / box

www.olympus.eu/capsule

As medical knowledge is constantly growing, technical modifications or changes of the product design, product specifications, accessories and service offerings may be required.