

OLYMPUS[®]

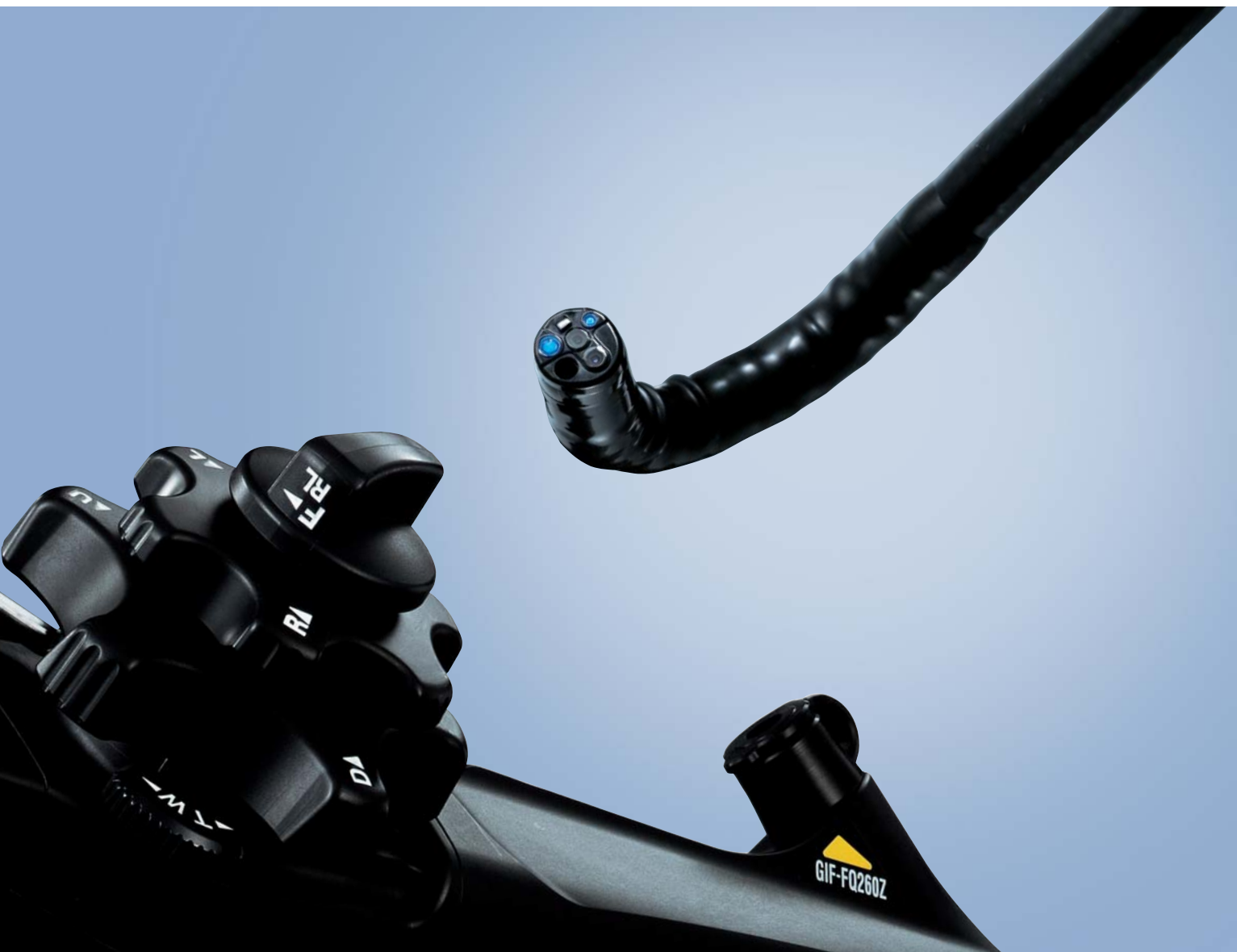
Your Vision, Our Future

EVIS LUCERA
SPECTRUM

EVIS LUCERA GASTROINTESTINAL VIDEOSCOPE

GIF-FQ260Z

High-Sensitivity CCD Specially Designed for Fluorescence Observation,
Plus Optical Magnification Function



High-sensitivity CCD for fluorescence imaging provides a powerful new way to observe the mucosa

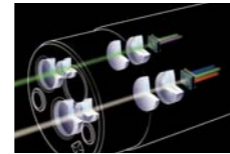
AFI Auto Fluorescence Imaging

Visualizing subtle differences in mucosal structures

Although it has been known for some time that fluorescence is generated when blue light is irradiated on the mucosa, there has been no effective way to exploit this phenomenon because the fluorescence is so weak that conventional CCDs can barely detect it. Now, thanks to a newly developed high-sensitivity CCD, Olympus has developed an AFI system able to accurately detect this fluorescence, making it possible to visualize subtle differences in mucosal structures that would be difficult to discern in normal observation.

The world's first GI scope for AFI fluorescence observation

In addition to a conventional CCD for normal and NBI observation, the GIF-FQ260Z incorporates a high-sensitivity CCD designed specifically for fluorescence observation. The incorporation of both a dedicated AFI CCD and conventional CCD has made it possible to integrate functions for normal and fluorescence observation into a single scope.



Narrow Band Imaging and optical magnification

In addition to AFI capability, the GIF-FQ260Z features optical magnification*¹ at up to 85×**² enabling a closer, more detailed view in normal observation. NBI (Narrow Band Imaging) capability is also available, further supporting and enhancing observation capabilities. With just this one scope, you can take advantage of three very different and highly useful observation modes — normal, AFI, and NBI. Modes can be switched at the touch of a button, and the ability to use both AFI and NBI modes to view the same site is expected to increase diagnostic accuracy.

*¹ Optical magnification is available in normal and NBI mode.
**² When displayed on a 19-inch monitor. On an 18-inch monitor, magnification is 80×.

Scope ID function for simplified scope management and setup

A built-in memory chip stores scope-specific information such as product code, serial number, and basic specifications. Every time the scope is connected to a processor, the stored information and updated settings are transmitted to the processor. This saves time when preparing for an examination since you won't have to readjust settings such as white balance each time.

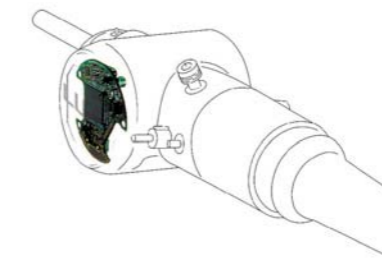
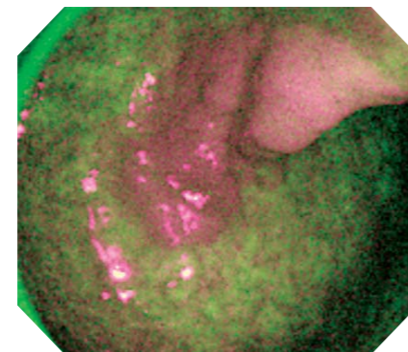


Image Comparison — Stomach

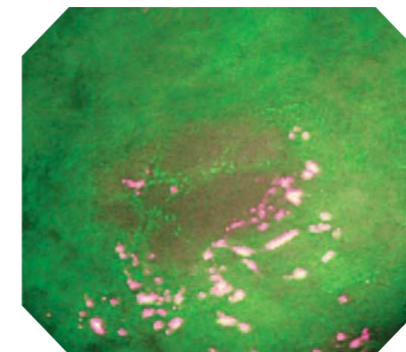


Normal image

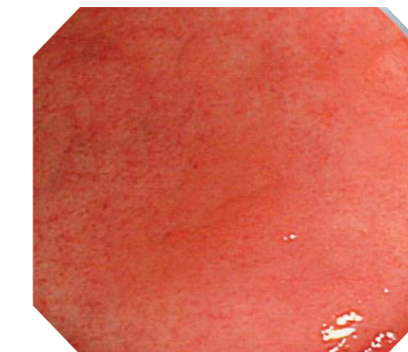


AFI image

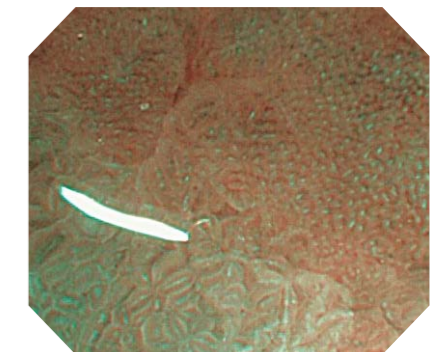
Observation Mode Selection — Stomach



AFI image



Normal image (magnified)

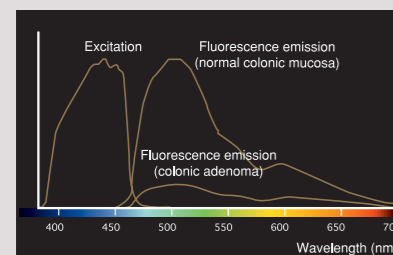


NBI image (magnified)

The Principle of AFI

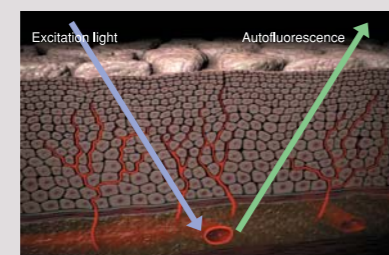
Differences in fluorescence intensity on the mucosal surface

When blue light is irradiated on mucosal tissues, green fluorescence is produced. AFI takes advantage of the fact that the intensity of this fluorescence differs between normal and diseased mucosa.



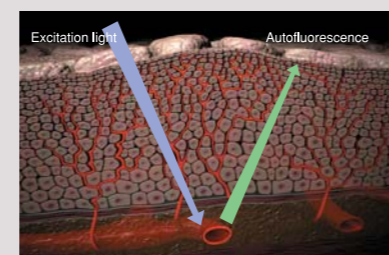
How AFI images are created

When blue light reaches the submucosal layer, strong fluorescence is produced. If there is any change relevant to the development of a lesion such as an abnormal aggregation of capillaries in the superficial layer or thickening of the mucosa, the light is blocked, attenuating the fluorescence. These changes are



Normal mucosa

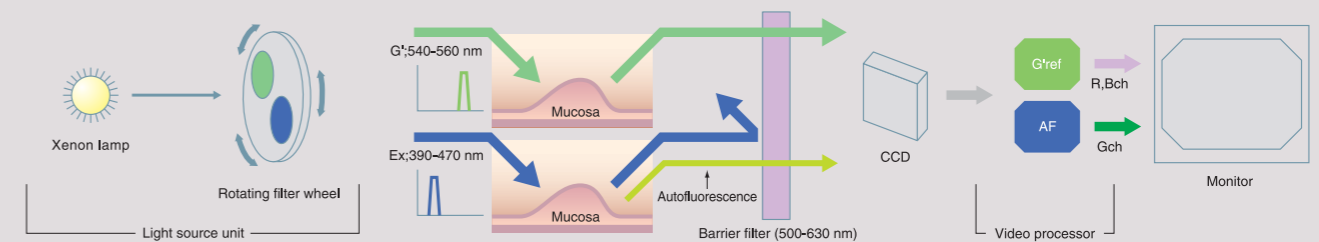
depicted by AFI as color information, so that changes in fluorescence strength between a normal section and a lesion are shown chromatically. Normal sections are depicted with a greenish color tone, while areas where the fluorescence is attenuated are shown with a magenta color tone.



Hyperplastic mucosa

AFI imaging process:

Blue and green light is generated by the optical filters and irradiated on the tissue, and the weak fluorescence is imaged by the processing circuitry.



OLYMPUS GIF TYPE FQ260Z



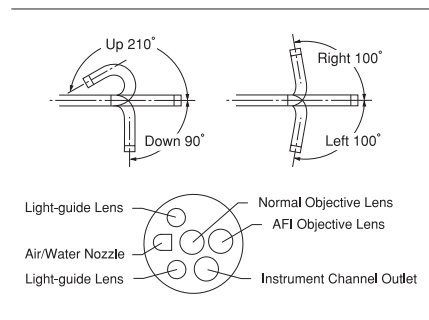
Main Features

- Optical magnification function enlarges images up to 85X (when displayed on a 19-inch monitor) without sacrificing image quality.
- Two exclusive new image enhancement functions: Auto Fluorescence Imaging, which is designed to help image the difference between normal and tumorous mucosa; and Narrow Band Imaging, which is designed to help emphasize fine capillary patterns.
- Extra-wide 140° field of view enables accurate observation of a wider area.
- Large instrument channel measures 2.8 mm across for compatibility with a wide range of instrumentation.
- Four-way angulation (210° up, 90° down, and 100° right/left) permits complete and comprehensive examination of the upper digestive tract.
- Scope ID function retains individual scope information in the memory chip and displays it on the monitor. Also stores settings such as Automatic White Balance to facilitate endoscopy suite management.



Specifications

Optical System	Field of view	Normal: WIDE – 140°, TELE – 60°; AFI: 140°
	Direction of view	Forward viewing
	Depth of field	Normal: WIDE – 7 to 100 mm, TELE – 2 to 3.5 mm; AFI: 5 to 100 mm
Distal End	Outer diameter	11.0 mm
	Insertion Tube	Outer diameter 10.5 mm
Bending Section	Angulation range	Up 210°, Down 90°, Right 100°, Left 100°
Working Length		1030 mm
Total Length		1345 mm
Instrument Channel	Inner diameter	2.8 mm
	Minimum visible distance	Normal: 3 mm from distal end; AFI: 4 mm from distal end
	Endotherapy accessory entrance/exit position in field of view	Normal AFI



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



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For a complete listing of sales and distribution locations visit:
www.olympus.com