

EVIS EUS ENDOSCOPIC ULTRASOUND CENTER

## EU-ME2

Dedicated ultrasound processor with versatile functions



# Envisioning the future of endosonography

The EU-ME2 is a high-quality compact ultrasound processor for use with OLYMPUS endoscopic and endobronchial ultrasound (EUS and EBUS) equipment that has been designed for integration with conventional endoscopy on a single workstation. With its high resolution and an image display that promotes clear visualization, the EU-ME2 brings real clarity to your EUS and EBUS procedures, supporting better detection and characterization of lesions. A variety of new features such as the Elastography mode will explore the future of endosonography.

## Excellent

Improved basic functions ensure excellent ultrasound imaging

## Unique

New functions offer unique new possibilities in endosonography

## Specific

Designed specifically to optimize endosonographic procedures



# Excellent

## Improved basic functions ensure excellent ultrasound imaging

### B-mode



B-mode image quality has been substantially improved, making it possible to support more efficient localization of tumors and more accurate identification of tissue properties and boundaries. Clearer image delineation helps enable more precise direction for puncturing and aspiration during EUS-FNA and may make it easier to develop effective therapeutic practices.

#### Electronic Radial Scanning



#### Electronic Curved Linear Array Scanning (EUS-FNA)



#### Electronic Curved Linear Array Scanning (EBUS-TBNA)



# Unique

## New functions offer unique new possibilities in endosonography

### Tissue Harmonic Echo (THE) mode



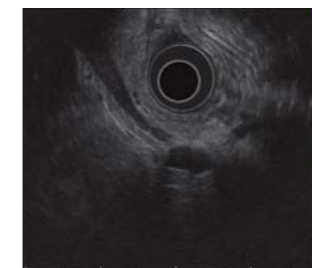
When ultrasound waves are propagated through tissue, distortion occurs and harmonic components are generated. The THE mode uses these components to build an image of the targeted area. Potential advantages of harmonic imaging include improved resolution, improved signal-to-noise ratio, and reduced artifacts.



THE-P



THE-R



THE-P

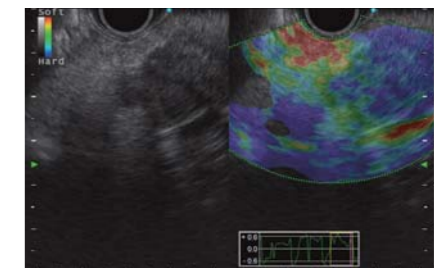
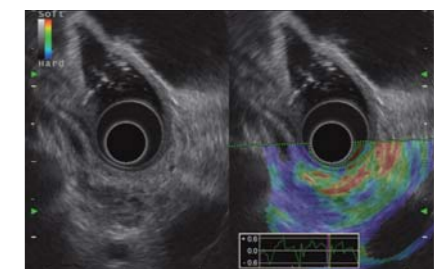


THE-R

### Elastography (ELST) mode



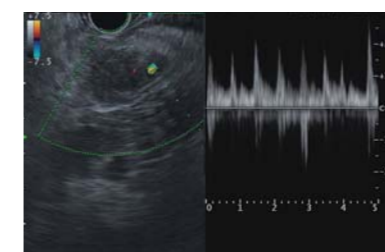
An advanced form of ultrasound, elastography displays the relative stiffness of tissues by taking advantage of the deformation caused by the compression or vibrations generated by the heartbeat or vascular pulsations.



### Pulse Wave Doppler (PW) mode



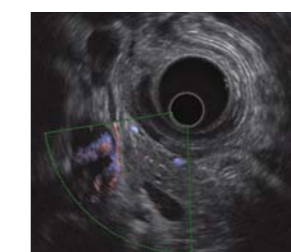
Pulse Wave Doppler measures blood flow velocities at specific locations, while cross-sectional images are viewed to spot the target vessel.



### H-FLOW (High resolution Flow) mode



Especially useful for imaging small vessels around the tip of the endoscope, the H-FLOW mode can help facilitate more precise maneuvering during EUS-FNA/EBUS-TBNA by making it potentially less difficult to avoid vessels.

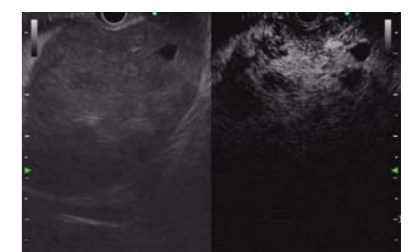


### Contrast Harmonic EUS (CH-EUS) mode



Using technology designed to depict harmonics, the CH-EUS mode is expected to help realize enhanced sensitivity to tumors and other abnormal growths.

\* Regulations and usage of ultrasound contrast agents vary according to the country where they are used and the type of agents. Please use the ultrasound contrast medium according to the instructions attached to the products.



CH-EUS image courtesy of Pietro Fusaroli, MD (University of Bologna/ Hospital of Imola)

# Specific

## Designed specifically to optimize endosonographic procedures

### Fully compatible with a wide range of EUS and EBUS scopes and probes

Integrating both electronic and mechanical scanning technologies, the EU-ME2 is a total endosonography solution compatible with virtually all available OLYMPUS ultrasound endoscopes and miniature probes, providing access to a full range of endosonographic applications.

- Mechanical Radial Scanning EUS Scopes
- Ultrasound Probes



- Electronic Radial Scanning EUS Scopes
- Curved Linear Array Scanning EUS Scopes
- Curved Linear Array Scanning EBUS Scopes

### Single monitor and single keyboard

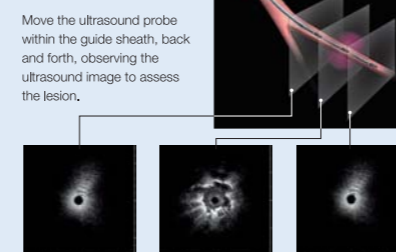
The EU-ME2 features a user-friendly keyboard with a touch panel and trackball. The picture-in-picture function is standard, and when available, both endoscopic and ultrasound images can be displayed on a single monitor.

### EVIS-ready and space-saving design

The EU-ME2 is designed to save space in your endoscopy suite. As an integral part of the OLYMPUS EVIS endoscopy system, it fits snugly on the standard endoscopy trolley, leaving plenty of room for all the other equipment you need.

### Full support for endobronchial ultrasonography

The EU-ME2 is designed to support a wide range of EBUS procedures, such as EBUS guide-sheath guided transbronchial biopsy. By placing the guide sheath near the target lesion, which has been delineated by the miniature probe, you can easily perform brush cytology. Advancing the sampling device through the sheath after the miniature probe has been withdrawn helps improve accuracy and shorten examination time.



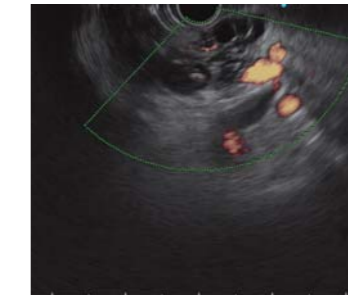
## Clinical Cases

See some of what you can do with the EU-ME2 using various types of ultrasound endoscopes. With the excellent performance made possible by improved functions, the expanded possibilities offered by unique new functions, and the efficiency of the endosonography-specific design, the EU-ME2 will help you envision the future of endosonography.

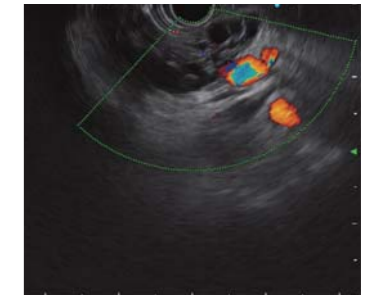
### With Electronic Curved Linear Array Scanning EUS Scopes



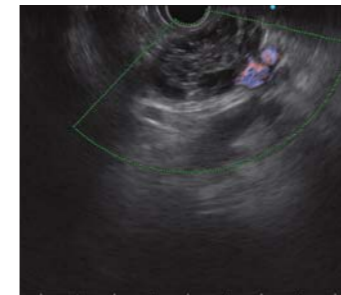
THE-P mode



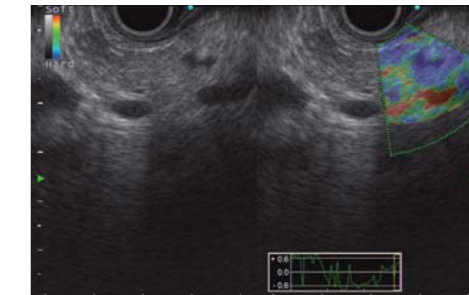
POWER FLOW mode



COLOR FLOW mode

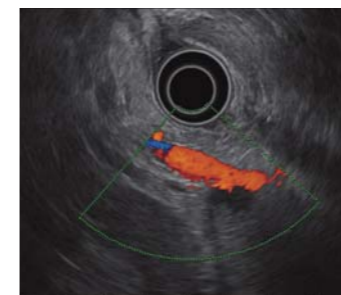


H-FLOW mode

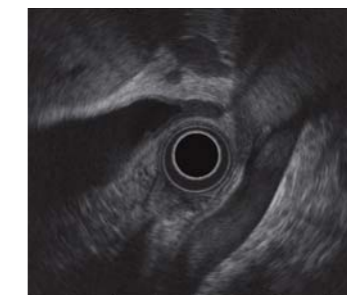


ELST mode

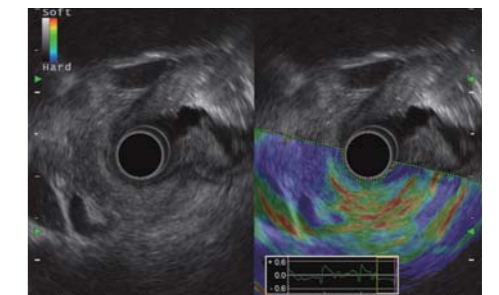
### With Electronic Radial Scanning EUS Scopes



COLOR FLOW mode



THE-R mode

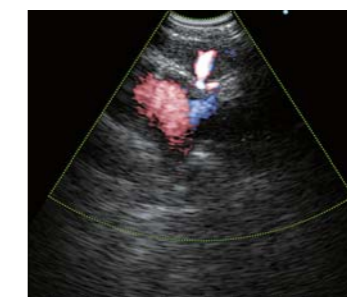


ELST mode

### With Electronic Curved Linear Array Scanning EBUS Scopes



B-mode



H-FLOW mode



ELST mode

EVIS EUS ENDOSCOPIC ULTRASOUND CENTER  
**OLYMPUS EU-ME2 PREMIER PLUS**  
**OLYMPUS EU-ME2 PREMIER**  
**OLYMPUS EU-ME2**

**Specifications**

Power Supply	Voltage	100 - 240 V AC (for NTSC) 220 - 240 V AC (for PAL)		
	Voltage fluctuation	Within ± 10%		
	Frequency	50/60 Hz		
	Frequency fluctuation	Within ± 1 Hz		
	Consumption electric power	370 VA		
Size	Dimensions	Main unit	371 (W) × 175 (H) × 480 (D) mm 445 (W) × 184 (H) × 495 (D) mm (maximum)	
		Keyboard	392 (W) × 39 (H) × 207 (D) mm	
	Weight	Main unit	22.5 kg	
		Keyboard	2.5 kg	
Classification	Type of protection against electric shock	Class I		
	Degree of protection against electric shock of applied part	TYPE BF applied part Where no classification mark appears, the device is a TYPE BF applied part		
	Degree of protection against explosion	The ultrasound center should be kept away from flammable gases		
TYPE BF Applied Part		This instrument can safely be applied to any part of the body except the heart		
EMC		This instrument complies with the standards listed as follows : IEC 60601-1-2 : 2001 IEC 60601-2-37 : 2007 CISPR 11 of emission : Group 1, Class B		
Ultrasound Scanning Format		Mechanical scanning, Electronic scanning		
Mechanical Scanning	Display mode	B-mode		
	Scanning	Radial scanning		
	Compatible equipment	Mechanical radial scanning ultrasound endoscope, Miniature probe		
	Usable frequencies	C5, C7.5, C12, C20, 7.5, 12, 20 MHz		
	Display range	2, 3, 4, 6, 9, 12 cm		
	Image adjustment	Gain, Contrast, STC, Enhance		
	Display processing	Rotation	Rotatable	
		Display area	Full circle, bottom sector, top sector, scroll	
		Direction	Normal/Inverse	
	Cine memory		Maximum 160 frames, Cine review function	
	3D		3D display, MPR display	
Measurement		Distance, Area, Circumstance		
Electronic Scanning	Display mode	B-mode, FLOW mode, PW mode, THE mode, CH-EUS mode, ELST mode		
	Scanning	Radial scanning, Curved linear array scanning		
	Compatible equipment	Electronic radial scanning ultrasound endoscope Electronic curved linear array scanning ultrasound endoscope		
	Usable frequencies	5, 6, 7.5, 10, 12 MHz		
	Display range	2, 3, 4, 5, 6, 7, 8, 9, 12 cm		
	Image adjustment	Gain, Contrast, STC, Enhance, Compound		
	Display processing	Display area	Radial : Full circle, bottom sector, top sector, scroll Curved linear array : Convex	
		Direction	Normal/Inverse	
		Display pattern	Single-screen/Dual-screen	
	Cine memory		Over 600 frames storable depending on the conditions Cine review function	
	Focus	Auto Preset	Near/Far	
		Focus setting	Focus location adjustable, Focus number adjustable	
	FLOW mode		COLOR FLOW mode, POWER FLOW mode, H-FLOW mode	
	PW mode		B+PW, COLOR+PW, POWER+PW, H-FLOW+PW	
	Measurement		Distance, Area, Circumstance, PW measurement	
	THE (Tissue Harmonic Echo) mode *1, *2		THE-P, THE-R	
	CH-EUS (Contrast Harmonic EUS) mode *1, *2	Display pattern	CH-B, CH-Color	
		Preset (CH agent type)	2 types, adjustable (middle or low)	
		Frequency selection	2 types, adjustable (CH-R or CH-P)	
	ELST (Elastography) mode *2	TIC analysis	Displays the change over time of the average brightness of each ROI	
		Pressurization state guide	Strain graph, Pressurization bar	
Strain ratio *3		Displays the amounts of the strain and their ratio in two areas		
Recording Data	Data format	Still image	Bmp, Jpeg, 3dv	
		Movie data *1, *2	Avi	
Ancillary Equipment	Keyboard		Keyboard with built-in trackball, LCD touch panel and LED backlit keys	
	Recording device		Video printer (color/monochrome), DVR	
	Video system center	Monitor display selection		Endoscopic/Ultrasound image
		Picture-in-picture		Displays the endoscopic image as PinP sub-display on the ultrasound image
		Patient data		Shares patient data with the video system center

\*1 Only available on EU-ME2 PREMIER \*2 Only available on EU-ME2 PREMIER PLUS \*3 Not available in some areas



EU-ME2 PREMIER PLUS

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



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[www.olympus.com](http://www.olympus.com)