

ENDOSCOPIC ULTRASOUND CENTRE

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 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 visualisation, the EU-ME2 brings real clarity to your EUS procedures, supporting better detection and characterisation of lesions. A variety of new features such as harmonic echo and Elastography help to 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 optimise endosonographic procedures.



EXCELLENT – IMPROVED BASIC FUNCTIONS ENSURE EXCELLENT ULTRASOUND IMAGING



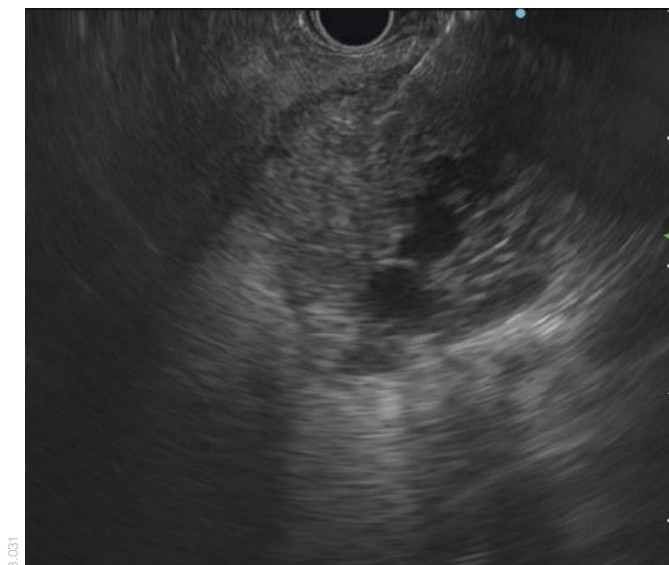
B-mode

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

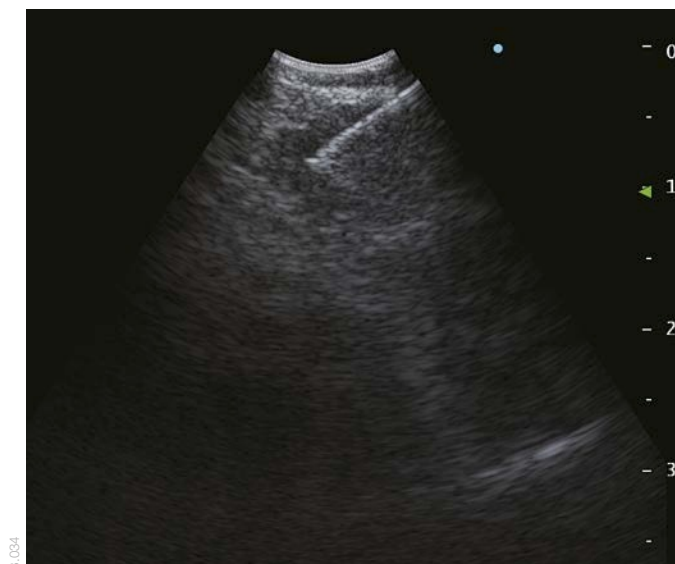
Electronic radial scanning



Electronic curved linear array scanning



EBUS-TBNA



UNIQUE – NEW FUNCTIONS OFFER UNIQUE NEW POSSIBILITIES IN ENDOSONOGRAPHY



Tissue Harmonic Echo (THE)

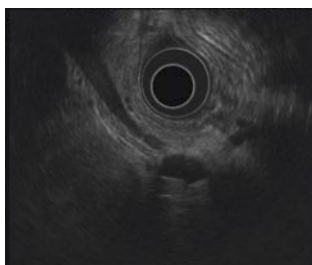
When ultrasound waves are propagated through tissue, distortion occurs and higher harmonic components are generated. The THE mode uses these components to build an image of the targeted area. Potential advantages of harmonic imaging include improved resolution, an improved signal-to-noise ratio and fewer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



THE-P (radial)



THE-P (linear)



THE-R (radial)

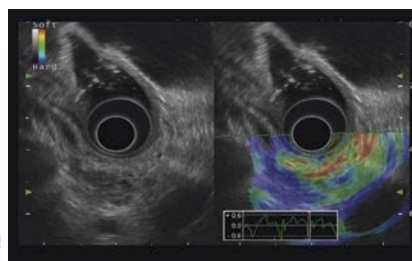


THE-R (radial)

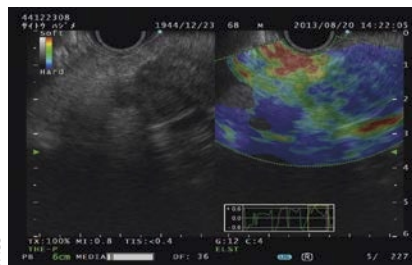


Elastography

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.



ELASTOGRAPHY (radial)

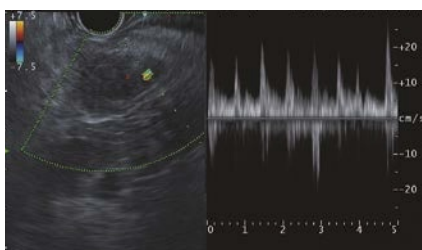


ELASTOGRAPHY (linear)



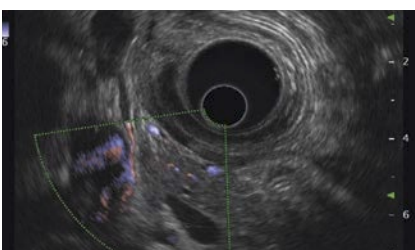
Pulse Wave Doppler

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



H-FLOW

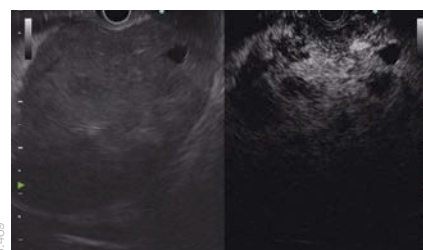
Especially useful for imaging small vessels around the tip of the endoscope, the H-FLOW (High Resolution Flow) mode can help facilitate more precise manoeuvring during EUS-FNA or EBUS-TBNA by making it potentially easier to avoid vessels.



Contrast Harmonic EUS (CH-EUS)

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

Note: 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 provided with the products.



SPECIFIC – DESIGNED SPECIFICALLY TO OPTIMISE 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 endoscopes
- Ultrasound miniature probes
- Electronic radial endoscopes
- EUS curved linear array endoscopes
- EBUS curved linear array endoscopes



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 endoscopy and ultrasound images can be displayed on a single monitor.

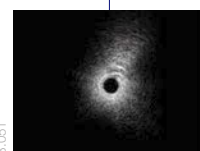
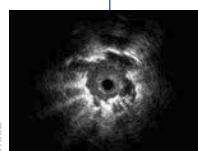
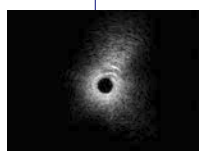
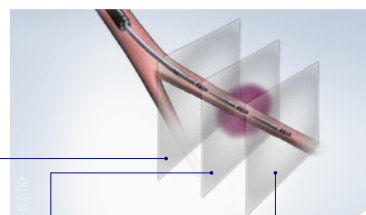
EVIS-ready and space-saving design

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 the EBUS GuideSheath procedure. By placing the GuideSheath with the inserted miniature probe near the target lesion, the probe can be withdrawn and forceps or a brush can be conveniently advanced to the site of the lesion for further sampling. Advancing the sampling device through the sheath after the miniature probe has been withdrawn helps to improve accuracy and shorten the examination time.

Move the ultrasound probe within the guide sheath, back and forth observing the ultrasound image to assess the lesion.



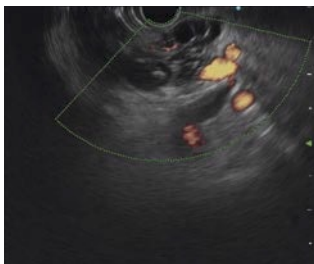
CLINICAL CASES

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

With a curved linear array ultrasound endoscope



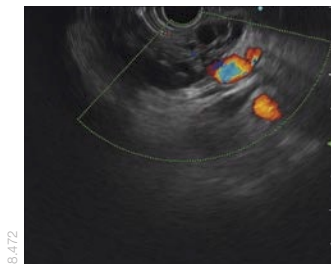
THE-P mode



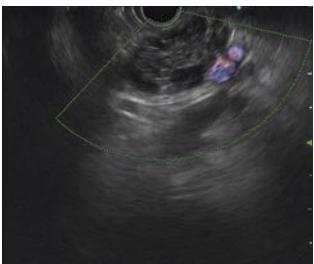
POWER FLOW mode



ELST (Elastography) mode



COLOR FLOW mode

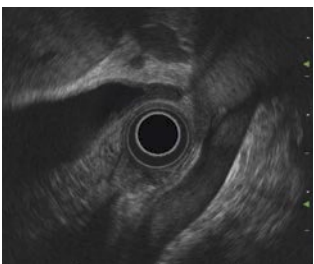


H-FLOW mode

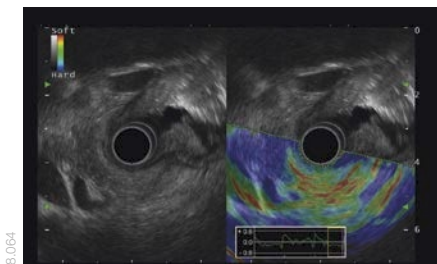
With an electronic radial ultrasound endoscope



COLOR FLOW mode



THE-R mode



ELST (Elastography) mode

EBUS



B-mode



H-FLOW mode



ELST (Elastography) mode

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 (max.)	
		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 centre 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 (64 steps, clockwise/counterclockwise)	
		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, Elastography 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 can be stored 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 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)	
		TIC analysis	Displays the change over time of the average brightness of each ROI	
		ELST mode (Elastography) *2	Pressurisation state guide	Strain graph, pressurisation bar
			Strain ratio	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 (colour/monochrome), DVR	
		Video system centre	Monitor display selection	Endoscopic/ultrasound image
	Picture-In-Picture		Displays the endoscopic image as PIP sub-display on the ultrasound image	
	Patient data		Shares patient data with the video system centre	



EU-ME2 PREMIER PLUS



EU-ME2 PREMIER PLUS

*1 Only available on EU-ME2 PREMIER/EU-ME2 PREMIER PLUS *2 Only available on EU-ME2 PREMIER PLUS