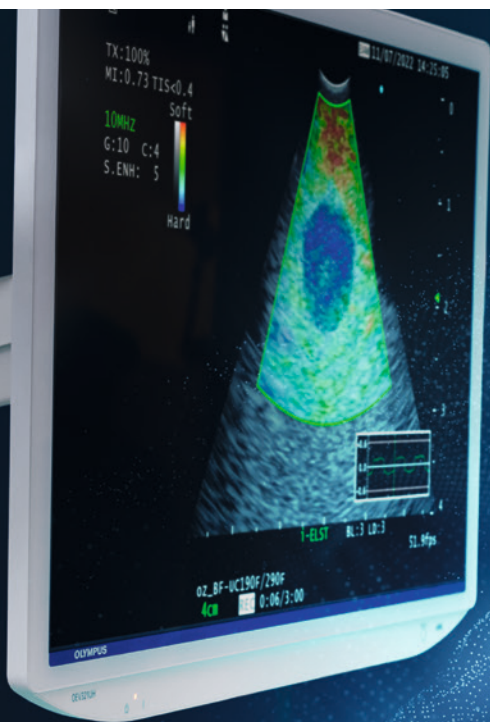


EVIS EUS Endoscopic Ultrasound Center

## EU-ME3

Advancing the Dimensions of Endosonography



# Advancing the Dimensions of Endosonography

Focused on Your Expertise

With more functions, better visualization, and enhanced operability, the EU-ME3 expands the dimensions of endosonography.



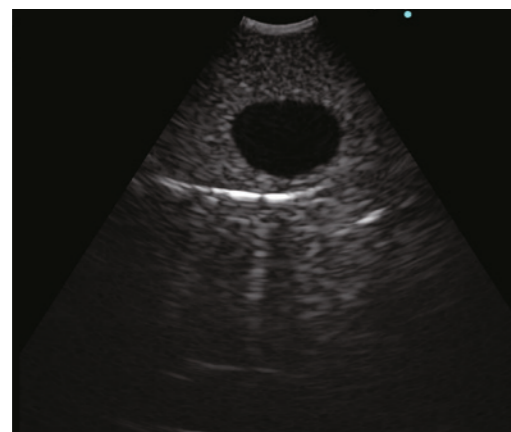
# Improved Ultrasound Imaging

## Enhanced Visualization

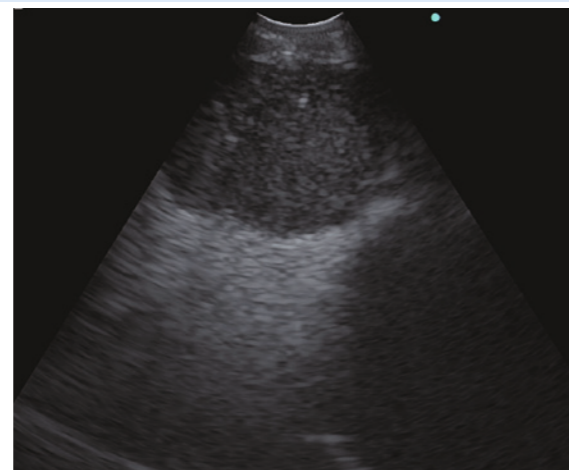
### B-mode

#### Enhanced B-mode

The EU-ME3 provides outstanding image quality and functionality – compatible to a high-end ultrasound center – in a compact body. B-mode image quality has been substantially enhanced compared to our predecessor model (EU-ME2).



EU-ME2



EU-ME3

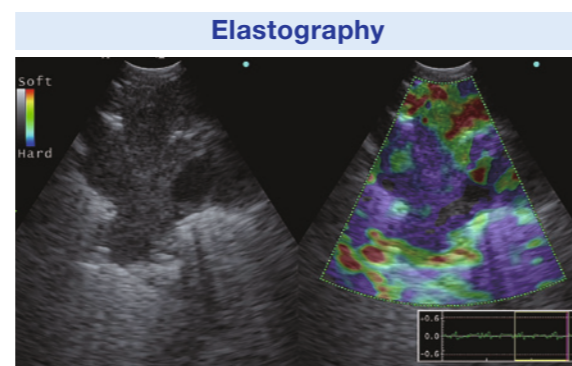
#### Improved Elastography

The EU-ME3 features an elastography function which visualizes the amount of strain in the tissue (tissue stiffness) during compression and retraction, making it possible to obtain more information about tissue properties.

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.

Two meta-analyses<sup>\*1-2</sup> reported that EBUS elastography is a useful modality for differentiating between benign and malignant mediastinal lymph nodes during EBUS-TBNA.

i-ELST is a new technology incorporated into the EU-ME3 that makes it easier to display elastic images, even when displacement due to pulsation is modest.

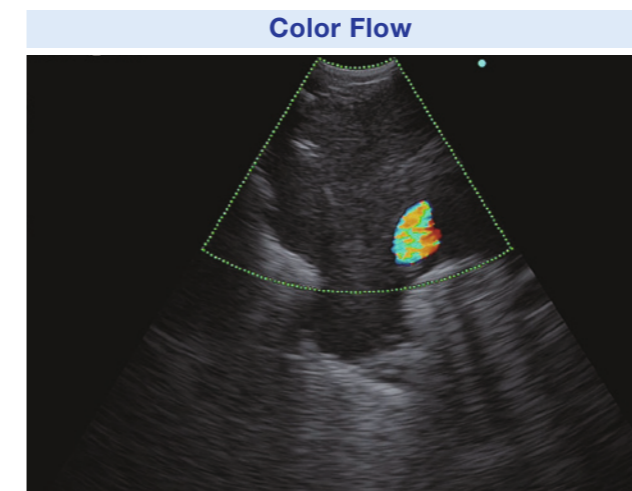


Elastography

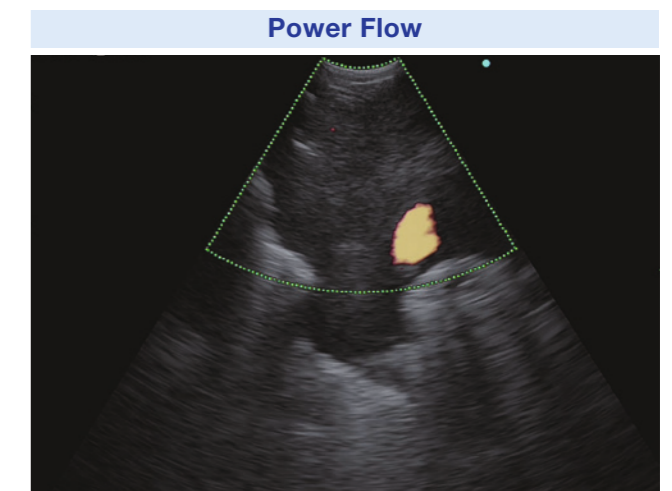
## Doppler Modes

The EU-ME3 offers three basic Doppler modes to distinguish blood flow more clearly – Color Flow, Power Flow, and Pulsed Wave Doppler (PWD). Doppler modes can be used to support safer procedures, benefitting both the patient and the physician.

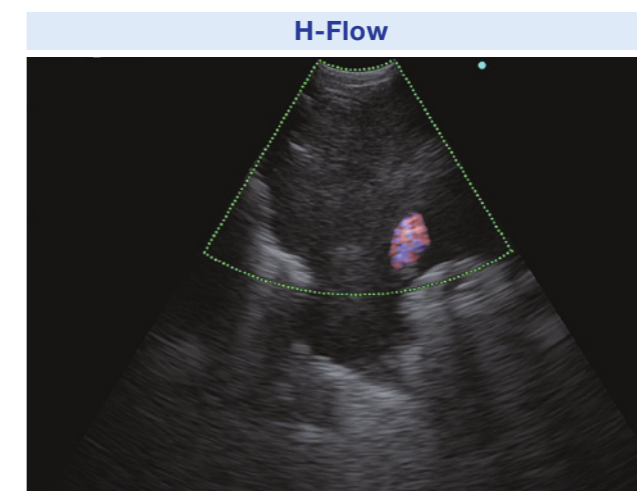
In addition to the three basic Doppler modes, the EU-ME3 also features H-Flow. H-Flow is a more sensitive Doppler mode that shows directional blood flow with less blooming. It is especially useful for imaging small vessels around the tip of the endoscope.



Color Flow



Power Flow



H-Flow

## Tissue Harmonic Echo (THE)

When ultrasound waves are propagated through tissue, distortion is produced and harmonic components are generated. The Tissue Harmonic Echo (THE) mode uses these components to build an image of the targeted area, providing a more detailed granular depiction. Advantages of harmonic imaging include improved resolution, improved signal-to-noise ratio, and fewer artifacts.

\*1 'Utility of Elastography for Differentiating Malignant and Benign Lymph Nodes During EBUS-TBNA', J BronchologyIntervPulmonol. 2021 Jun 16.

\*2 'Diagnostic value of endobronchial ultrasound elastography for differentiating benign and malignant hilar and mediastinal lymph nodes: a systematic review and meta-analysis', Med Ultrason. 2021 Apr 1.

## Designed for Enhanced Usability

### Excellent Operability

#### Keyboard Usability

The keyboard was designed with a simple layout in mind and includes a user-friendly built-in touch panel, LED backlit keys and a trackpad for ease of use and cleaning. The larger LCD touch panel allows for a greater range of functions to be displayed at one time.



#### Ease of Targeting

The position and size of the Doppler region of interest (ROI) can be conveniently adjusted with a trackpad or buttons on the touch panel.

#### Ease of Cleaning

The new keyboard trackpad is easier to clean and disinfect than a conventional keyboard trackball design (EU-ME2).

### Enhancing Versatility

#### Full Support for Endobronchial Ultrasound Bronchoscopy

The EU-ME3 ultrasound processor is unique in its ability to support a wide range of Endobronchial Ultrasound Bronchoscopy (EBUS) procedures, such as EBUS-guided transbronchial needle aspiration (EBUS-TBNA) and radial EBUS for peripheral bronchoscopy procedures.

A curvilinear array scanning ultrasound bronchoscope can be connected to the EU-ME3 to perform EBUS-TBNA in mediastinal and hilar lymph nodes, or mediastinal and intrapulmonary targets.

When the EU-ME3 is connected with probe driving units to run Olympus ultrasound miniature probes, it has the ability to provide cross-sectional ultrasound images of the airway wall, lymph nodes, or peripheral lung lesions.

With the radial EBUS support, peripheral bronchoscopy procedures can be done with real-time confirmation. Radial EBUS can be used with or without guide sheath.



#### Customizable Modules

Software options are available to meet the needs of any facility. With this modular concept, you can select and add the necessary functions at any time according to your needs and budget.

#### Comparison of Ultrasound Functions

	EU-ME2	EU-ME2 PREMIER	EU-ME2 PREMIER PLUS	EU-ME3
<b>B-mode</b>	✓	✓	✓	✓
<b>THE (Tissue Harmonic Echo)</b>	-	✓	✓	✓
<b>Flow</b>	✓	✓	✓	✓
<b>PWD (Pulsed Wave Doppler)</b>	✓	✓	✓	✓
<b>Elastography</b>	-	-	✓	✓ (Software Option)

\* This product may not be available in some areas.

## Specifications

### EVIS EUS ENDOSCOPIC ULTRASOUND CENTER OLYMPUS EU-ME3

<b>Power Supply</b>	Voltage	220 – 240 V AC		
	Voltage fluctuation	Within ±10%		
	Frequency	50/60 Hz		
	Frequency fluctuation	Within ±1 Hz		
	Consumption electric power	340 VA		
<b>Size</b>	Dimensions	Main unit	371 (W) × 175 (H) × 480 (D) mm 445 (W) × 184 (H) × 530 (D) mm (max.)	
		Keyboard	392 (W) × 39 (H) × 210 (D) mm	
	Weight	Main unit	21.5 kg (without software option case) 21.8 kg (with software option case)	
		Keyboard	2.5 kg	
<b>Classification</b>	Type of protection against electric shock	Class I		
	Degree of protection against electric shock or 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.		
<b>Ultrasound Scanning Format</b>		Mechanical scanning, electronic scanning		
<b>Mechanical Scanning</b>	Display mode	B-mode		
	Scanning	Radial scanning, helical scanning		
	Usable frequencies	12 MHz, 20 MHz		
	Display range	2, 3, 4, 6, 9, 12 cm		
	Display processing	Rotation	Rotatable	
		Display area	Full circle, bottom sector, top sector, scroll	
		Direction	Normal/Inverse	
	Cine memory	Over 1,500 frames storable depending on the conditions. Cine review function		
	3D	3D display, MPR display		
	Measurement	Distance, area, circumstance		
<b>Electronic Scanning</b>	Display mode	B-mode, FLOW mode, PW mode, CHE mode, ELST mode		
	Scanning	Radial scanning, curved linear array scanning		
	Usable frequencies	5 MHz, 6 MHz, 7.5 MHz, 10MHz, 12MHz		
	Display range	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 cm		
	Display processing	Rotation	Rotatable during radial scanning	
		Display area	Radial: Full circle, bottom sector, top sector, scroll, Curved linear array: Fixed	
		Direction	Normal/Inverse	
	Cine memory	Over 2,000 frames storable depending on the conditions. Cine review function		
	Focus	Auto preset	s-FOCUS, AUTO, MANUAL	
		Focus settings	Focus location and 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 mode	THE-P mode, THE-R mode		
	ELST mode (Software Options)	Pressurization guide	Pressurization bar, Strain graph	
Strain ratio		Measures strain or ratio of strain of 2 areas.		
<b>Recording Data</b>	Data format	Movie data	AVI	
	Keyboard	Built-in track pad and touch panel.		
	Recording device	DVR		
<b>Ancillary Equipment</b>	Video system center	Monitor display selection	Endoscopic/ultrasound image	
		Sub screen	Endoscopic image can be displayed in sub screen.	
		Patient data	Patient data can be shared with video system center.	



This product may not yet be available in all countries. It can only be purchased in a specific country once all regulatory requirements of such country for making the product available on the market are met.

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