

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.





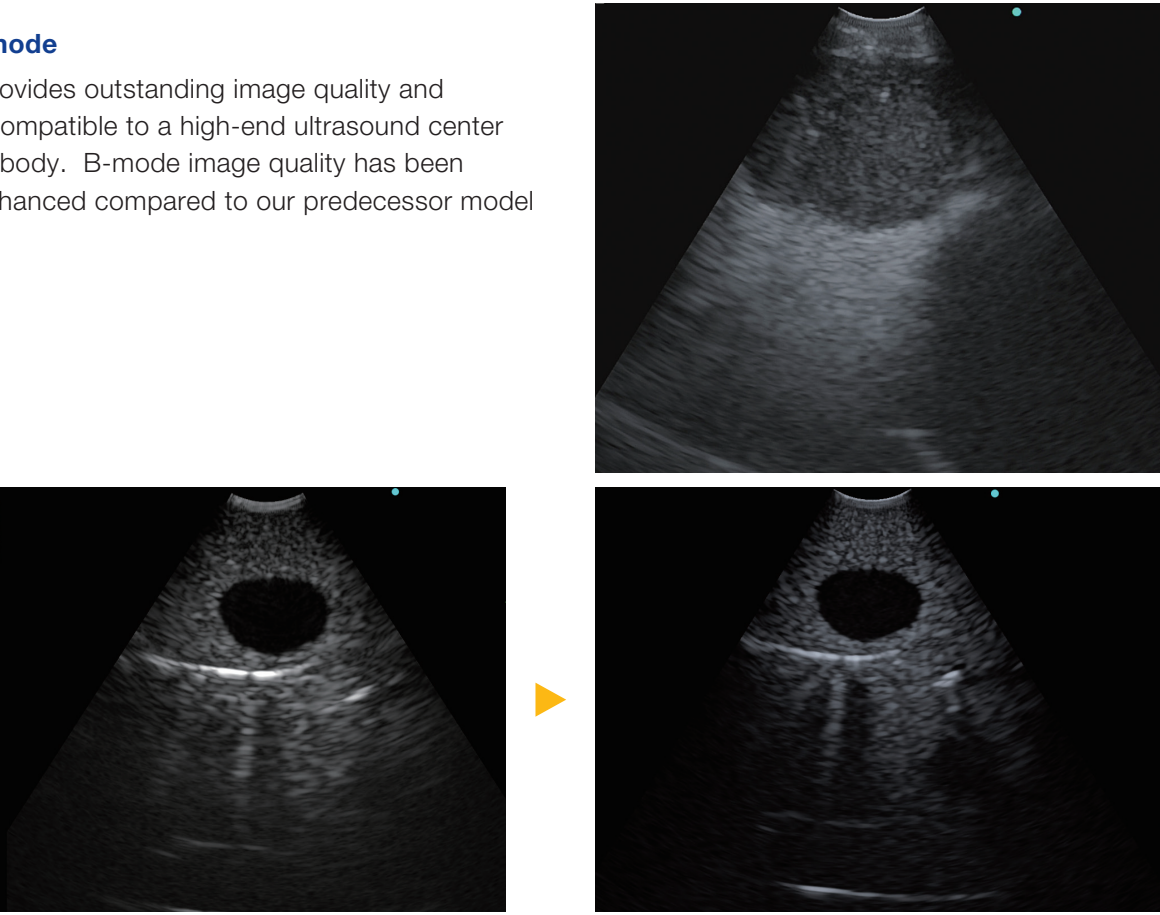
# Improved Ultrasound Imaging

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-ME2EU-ME3

## Improved Elastography

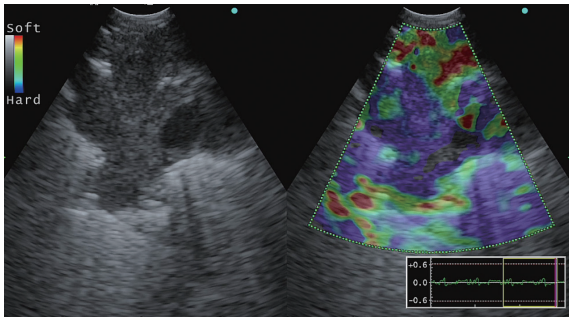
The EU-ME3 features an elastography function which visualizes the amount of strain in the tissue (tissue stiffness) during compression and retraction, making it possible to obtain more information about tissue properties.

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



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

<sup>\*2</sup> '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.

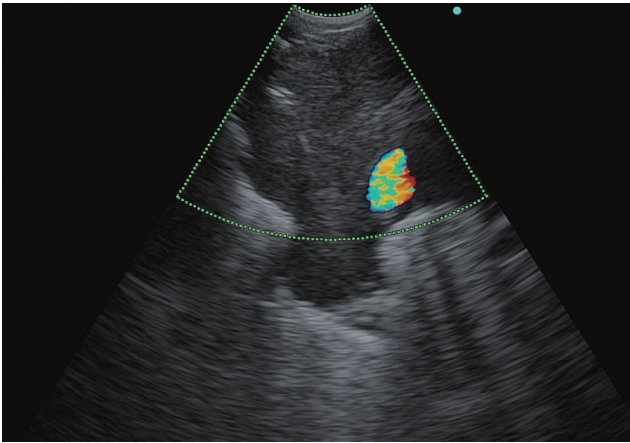
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## Doppler Modes

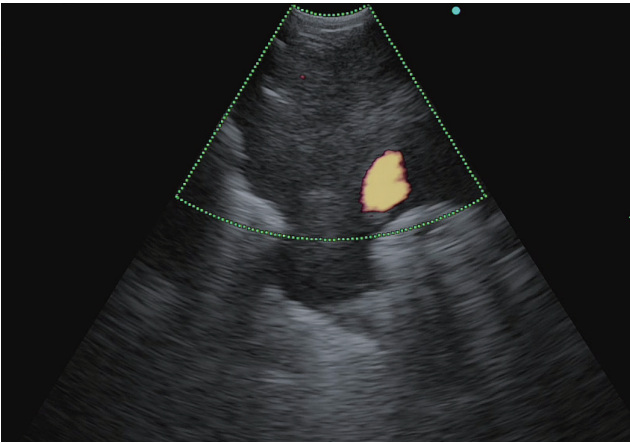
The EU-ME3 offers three basic Doppler modes to distinguish blood flow more clearly – Color Flow, Power Flow, and Pulsed Wave Doppler (PWD). Doppler modes can be used to support safer procedures, benefitting both the patient and the physician.

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.

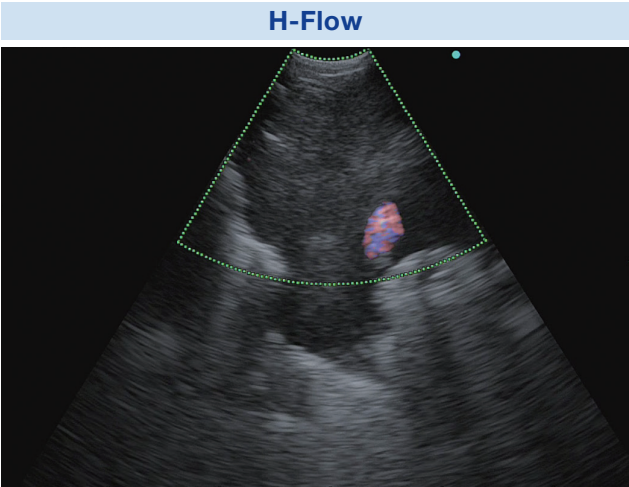
Color Flow



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.

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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

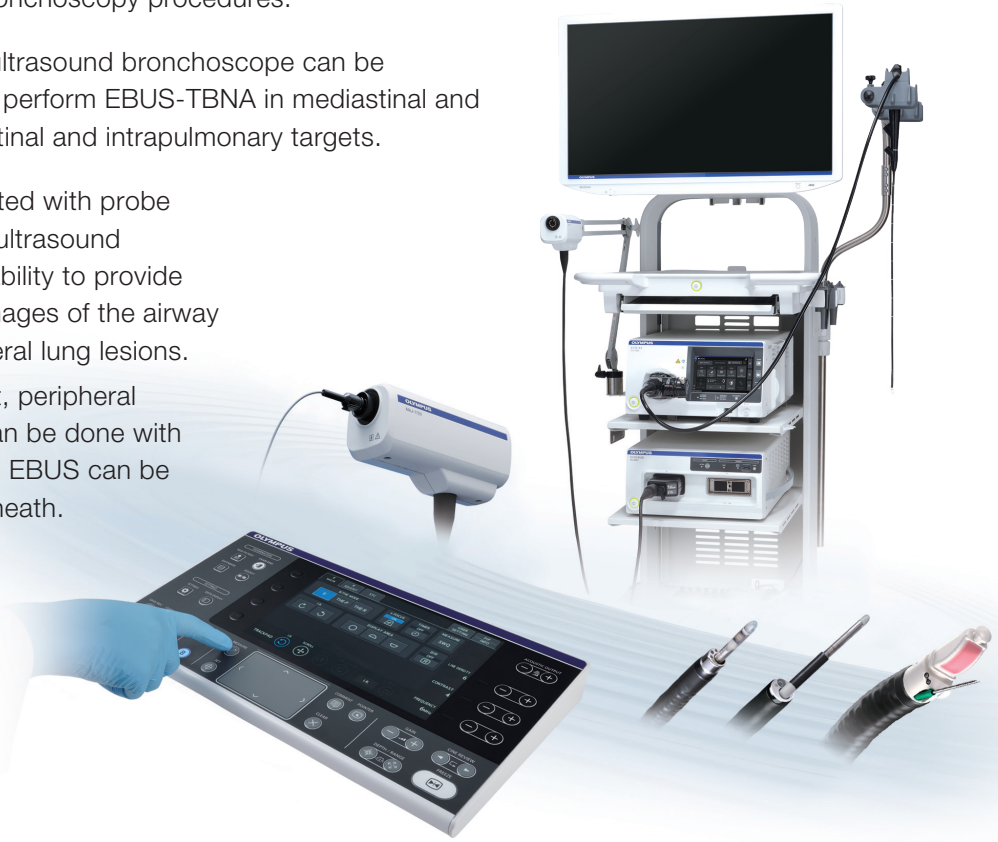
Full Support for Endobronchial Ultrasound Bronchoscopy

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-mode	✓	✓	✓	✓
THE (Tissue Harmonic Echo)	-	✓	✓	✓
Flow	✓	✓	✓	✓
PWD (Pulsed Wave Doppler)	✓	✓	✓	✓
Elastography	-	-	✓	✓ (Software Option)

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



## Specifications

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

Power Supply	Voltage		220 – 240 V AC
	Voltage fluctuation		Within ±10%
	Frequency		50/60 Hz
	Frequency fluctuation		Within ±1 Hz
	Consumption electric power		340 VA
Size	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
Classification	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.
Ultrasound Scanning Format			Mechanical scanning, electronic scanning
Mechanical Scanning	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
Electronic Scanning	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.
Recording Data	Data format	Movie data	AVI
	Keyboard		Built-in track pad and touch panel.
	Recording device		DVR
Ancillary Equipment	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.

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