

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.

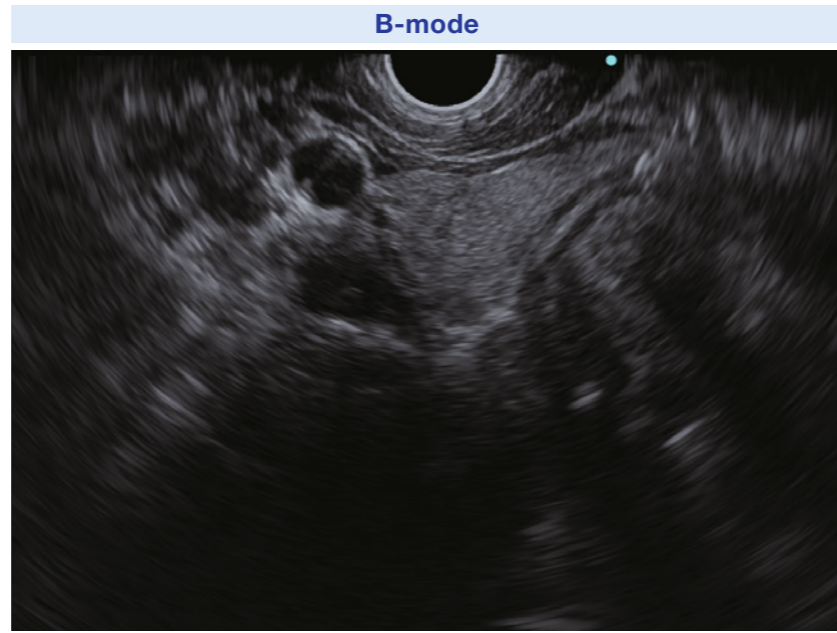
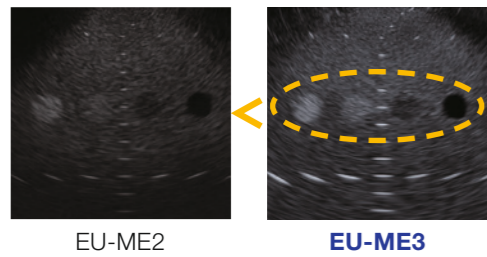


# Improved Ultrasound Imaging

## Enhanced Visualization

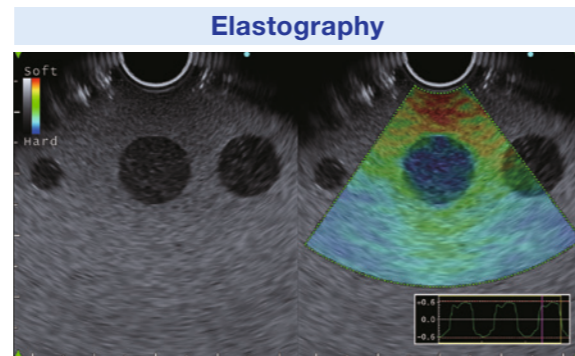
### Enhanced B-mode

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 conventional processor (EU-ME2).



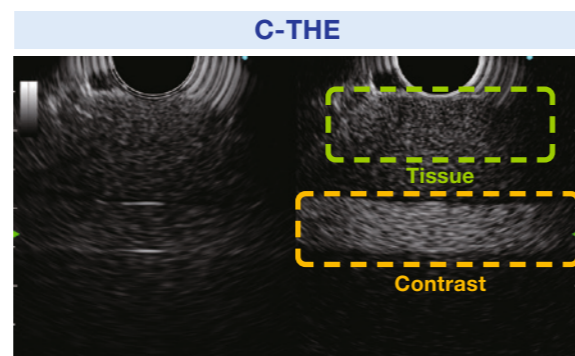
### Improved Elastography

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.



### Contrast Harmonic Echo (CHE)

Contrast Harmonic Echo (CHE) images harmonic components from ultrasound contrast agents. The newly added C-THE mode images signals from biological tissue and the contrast.



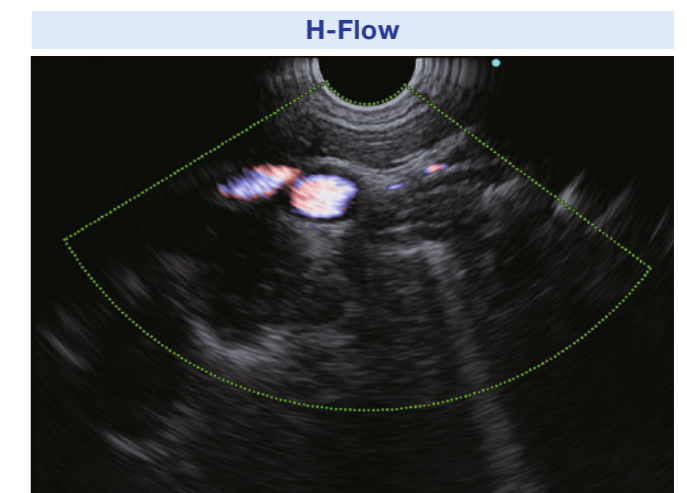
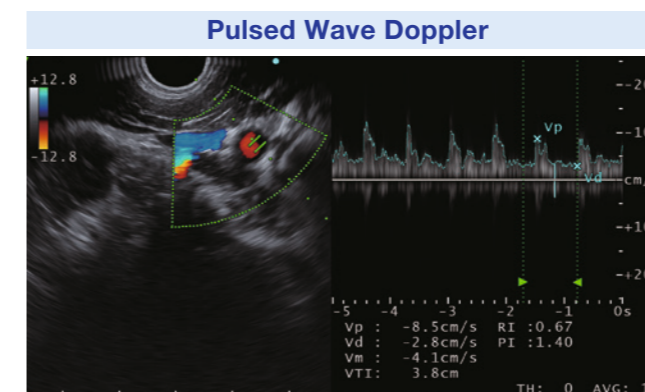
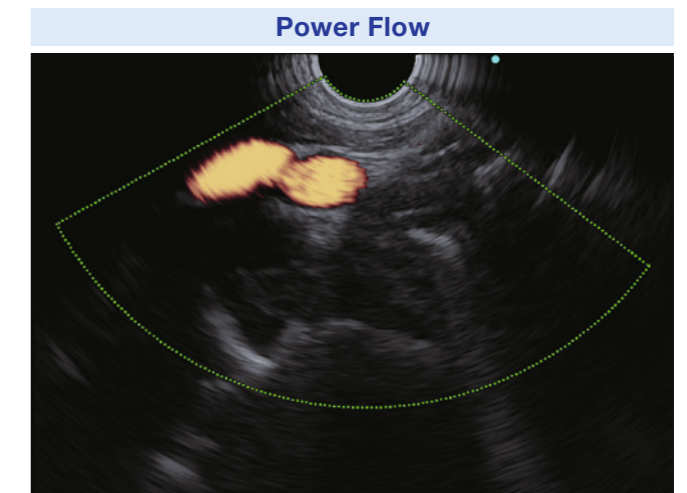
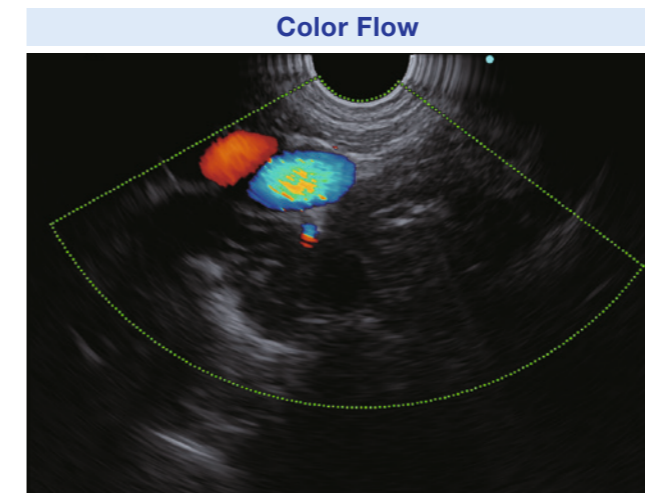
### Tissue Harmonic Echo (THE)

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.

### 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 echoendoscope.

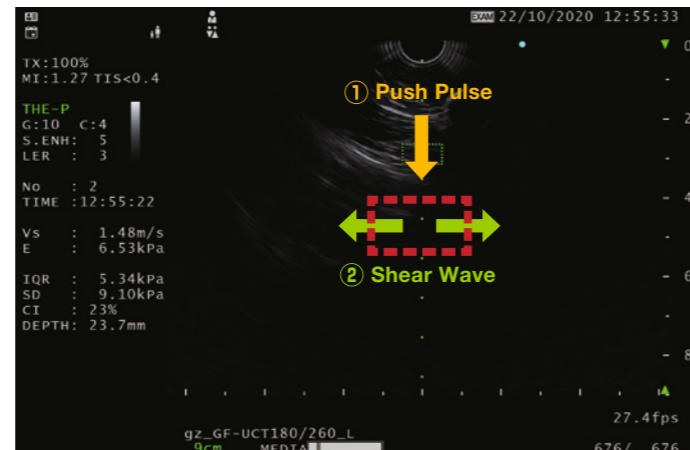
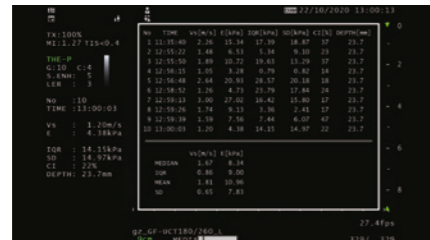


# Designed for Enhanced Usability

## Enhancing Functionality

### Shear Wave Quantification (SWQ)

SWQ provides an absolute value of tissue stiffness within a region of interest. It performs this quantitative tissue assessment by calculating the propagation velocity of shear waves, generated from a push-pulse.



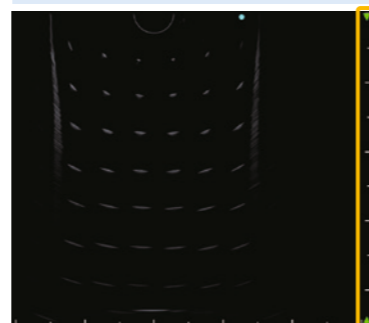
### Elastography (i-ELST)

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.

### s-FOCUS

The EU-ME3 is equipped with an s-FOCUS mode that reduces the change in resolution with distance from the ultrasound transducer surface. s-FOCUS eliminates the need to manually adjust the focal zones during the procedure.

### s-FOCUS (Entire Range)



## 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.

## Enhancing Versatility

### Wide Range of Compatibility

Integrating both electronic and mechanical scanning technologies, the EU-ME3 is compatible with echoendoscopes and miniature probes, creating a total endosonography solution for a full range of applications.



### Customizable Features

Software options are available to meet the needs of any facility. Because the functions are optional, you can select and add the necessary functions 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)	✓	✓	✓	✓
CHE (Contrast Harmonic Echo)	-	✓	✓	(Software Option)
Elastography	-	-	✓	(Software Option)
SWQ (Shear Wave Quantification)*	-	-	-	(Software Option)

\* For GI. Only compatible with GF-UCT180/260 and GF-UE190/290.

## Specifications

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

<b>Power Supply</b>	Voltage	220 – 240 V AC		
	Voltage fluctuation	Within $\pm 10\%$		
	Frequency	50/60 Hz		
	Frequency fluctuation	Within $\pm 1$ Hz		
	Consumption electric power	340 VA		
<b>Size</b>	Dimensions	Main unit	371 (W) $\times$ 175 (H) $\times$ 480 (D) mm 445 (W) $\times$ 184 (H) $\times$ 530 (D) mm (max.)	
		Keyboard	392 (W) $\times$ 39 (H) $\times$ 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, circumference		
<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	Rotation	Rotatable during radial scanning	
		Display area	Radial: Full circle, bottom sector, top sector, scroll, Curved linear array: Fixed	
	Display processing	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, circumference, PW measurement		
	THE mode	Display pattern	CHE, C-THE	
		CHE mode (Software Options)	Preset (CH agent type)	2 types (Low acoustic pressure, Middle acoustic pressure), selectable
	Frequency selection		2 types (CHE-P, CHP-R)	
ELST mode (Software Options)	Pressurization guide	Pressurization bar, Strain graph		
	Strain ratio	Measures strain or ratio of strain of 2 areas.		
SWQ (Software Options)	Calculates and displays transmission speed and elasticity of shear wave in ROI.			
<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.	



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