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.

**Pulse Wave Doppler**

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

**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.

**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
- COLOR FLOW mode
- H-FLOW mode
- ELST (Elastography) 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

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>100–240 V AC (for NTSC), 220–240 V AC (for PAL)</td>
</tr>
<tr>
<td>Voltage fluctuation</td>
<td>Within ±10%</td>
</tr>
<tr>
<td>Frequency</td>
<td>50/60 Hz</td>
</tr>
<tr>
<td>Frequency fluctuation</td>
<td>Within ±1 Hz</td>
</tr>
<tr>
<td>Consumption (electric power)</td>
<td>370 VA</td>
</tr>
</tbody>
</table>

### Size

<table>
<thead>
<tr>
<th>Component</th>
<th>Dimensions</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main unit</td>
<td>371 (W) × 175 (H) × 480 (D) mm</td>
<td>22.5 kg</td>
</tr>
<tr>
<td>Keyboard</td>
<td>392 (W) × 39 (H) × 207 (D) mm (max.)</td>
<td>2.5 kg</td>
</tr>
</tbody>
</table>

### 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.

### EMG

- **This instrument can safely be applied to any part of the body except the heart**
- **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

- **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 (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, circumference

#### 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
- **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, circumference, PW measurement
- **THE (Tissue Harmonic Echo) mode**: *1, *2
- **CH-EUS mode**: *1, *2
- **CH-P, THE-R
- **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)**: *1, *2
- **Pressurisation state guide**: Strain graph, pressurisation bar
- **Strain ratio**: Displays the amounts of the strain and their ratio in two areas

### Recording data

<table>
<thead>
<tr>
<th>Data format</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Still image</td>
<td>BMP, JPEG, 3DV</td>
</tr>
<tr>
<td>Movie data</td>
<td>*1, *2 AVI</td>
</tr>
</tbody>
</table>

### Ancillary equipment

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keyboard</td>
<td>Keyboard with built-in trackball, LCD touch panel and LED backlit keys</td>
</tr>
<tr>
<td>Recording device</td>
<td>Video printer (colour/monochrome), DVR</td>
</tr>
<tr>
<td>Video system centre</td>
<td>Monitor display selection Endoscopic/ultrasound image</td>
</tr>
<tr>
<td></td>
<td>Picture-In-Picture Displays the endoscopic image as PIP sub-display on the ultrasound image</td>
</tr>
<tr>
<td></td>
<td>Patient data Shares patient data with the video system centre</td>
</tr>
</tbody>
</table>

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

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