Specifications at a Glance

**BF-UC190F**

**Optical System**
- Field of View: 80°
- Direction of View: 20° forward oblique
- Depth of Field: 2–50 mm

**Insertion Tube**
- Distal End Outer Diameter: 6.6 mm
- Insertion Tube Outer Diameter: 6.3 mm
- Working Length: 600 mm

**Instrument Channel**
- Channel Inner Diameter: 2.2 mm
- Direction from Which EndoTherapy Accessories Enter and Exit the Endoscopic Image
- Angulation Range: Up 160°, down 70°
- Total Length: 890 mm

**Compatible Ultrasound Systems**
The subset of features listed here refers to the usage of the ultrasound processors in conjunction with the BF-UC190F endoscope.

**Hitachi Aloka**
- ProSound F75

**Olympus EU-ME2**

**Display Mode**
- B mode, M mode, D mode, POWER FLOW mode, POWER FLOW mode, eFLOW mode, PW mode, THE mode
- B mode, FLOW mode, COLOR FLOW mode, HI-FLOW mode, PW mode, THE mode, Elastography (ELST) mode

**Scanning Method**
- Electronic curved linear array
- Parallel to the insertion direction

**Frequency**
- 5/7.5/10/12 MHz
- 5/6/7.5/10/12 MHz

**Tissue Harmonic Echo (THE)**
- Broadband Harmonic (BbH)
- THE-P/THE-R (optimized penetration/resolution mode)

**Focusing Point**
- Up to four focusing points are available
- Focus location adjustable, focus number adjustable

**Contact Method**
- Balloon method, Direct-contact method

**ULTRASOUND TRANSDUCER**

- **A patient suspected of having mediastinal lymphoma was referred for EBUS-TBNA and diagnosed as having sarcoidosis.**

**EBUS-TBNA Needles**

<table>
<thead>
<tr>
<th>Article Name</th>
<th>Min. Working Channel Ø</th>
<th>Needle Length</th>
<th>Article Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA-201SX-4021</td>
<td>2.0 mm</td>
<td>20–40 mm</td>
<td>N4132830</td>
</tr>
<tr>
<td>NA-201SX-4022</td>
<td>2.0 mm</td>
<td>20–40 mm</td>
<td>N4133330</td>
</tr>
<tr>
<td>NA-U401SX-4021</td>
<td>2.0 mm</td>
<td>20–40 mm</td>
<td>N4132720</td>
</tr>
<tr>
<td>NA-U401SX-4022</td>
<td>2.0 mm</td>
<td>20–40 mm</td>
<td>N41327530</td>
</tr>
<tr>
<td>NA-U403SX-4019</td>
<td>2.2 mm</td>
<td>20–40 mm</td>
<td>N41327030</td>
</tr>
<tr>
<td>NA-U401SX-4025N</td>
<td>2.0 mm</td>
<td>20–40 mm</td>
<td>N41327330</td>
</tr>
</tbody>
</table>

EBUS-TBNA is a reliable and commonly established technique that enables visualization and sampling of mediastinal, central, and hilar lesions, as well as lymph nodes. With the ultrasound bronchoscope BF-UC190F inserted into the trachea or the esophagus, the accessible lymph node stations can be explored and the lesions outlined while offering you the freedom to select from different EBUS needle lineups and sizes depending on your needs.

### Universal Endoscopic Ultrasound Center EU-ME2
The EU-ME2 brings real clarity to your EBUS procedures, supporting better detection and characterization of lesions. A variety of new features such as harmonic echo and elastography help to explore the future of endosonography. In addition, the EU-ME2 provides compatibility with linear endoscopes and radial ultrasound miniature probes.

### Linear Ultrasound Bronchoscope BF-UC190F
The BF-UC190F is the third generation of the reliable Olympus EBUS-TBNA endoscope. It enables enhanced access and control to allow staging and diagnosis of even difficult-to-reach lymph nodes and lesions.¹

- **Powerful Angulation**: Up to 160° angulation for enhanced access to challenging target sites.
- **Unique, Compact Distal Tip**: Only 6.6 mm outer diameter and shorter rigid part of 25 mm for improved maneuverability.
- **Increased Puncture Performance**: 5° steeper puncture angle for smooth penetration of the bronchial wall.

This impressive EBUS-TBNA endoscope enables a wider field of application with its compact size while maintaining the large 2.2 mm working channel and the compatibility to the full needle portfolio.

### EBUS-TBNA for Reliable Staging and High Yield
EBUS-TBNA has proven not only to be of great value for lymph-node staging (N-staging) but also for the strategic use of cytology and histology samples for molecular analysis. The acquired specimen can be used to obtain a reliable diagnosis as well as for cell-block preparation, immunochemistry, and molecular studies.

### EBUS-TBNA Needles
Olympus is unique in offering a 19G EBUS-TBNA needle in addition to the 21G, 22G, and 25G needles. But now it also provides the second generation of EBUS needles – the ViziShot 2. While the entire portfolio offers the already established safety mechanisms and excellent ultrasound visibility, Olympus now provides a needle for every situation – expanding your possibilities in EBUS-TBNA.

#### ViziShot 2 FLEX
- Largest EBUS needle with a 19G diameter.
- Supports histological sampling for suspected sarcoidosis and lymphoma but also helps to provide more tissue for advanced molecular analyses.
- An ally for special indications but also whenever superior flexibility is needed.

#### ViziShot 2
- Smooth needle penetration thanks to sharper needle tip.
- Better needle control with the new ergonomic handle design.

#### ViziShot
- The reliable and long-established EBUS-TBNA needle.

Looking and Sampling Beyond the Bronchial Wall

**Specifications at a Glance**

BF-UC190F

- **Optical System**
  - Field of View: 80°
  - Direction of View: 20° forward oblique
  - Depth of Field: 2–50 mm

- **Insertion Tube**
  - Distal End Outer Diameter: 6.6 mm
  - Working Length: 600 mm

- **Instrument Channel**
  - Channel Inner Diameter: 2.2 mm
  - Direction from Which EndoTherapy Accessories Enter and Exit the Endoscopic Image

- **Bending Section**
  - Angulation Range: Up 160°, down 70°
  - Total Length: 890 mm

**Compatible Ultrasound Systems**

The subset of features listed here refers to the usage of the ultrasound processors in conjunction with the BF-UC190F endoscope.

<table>
<thead>
<tr>
<th>Processor</th>
<th>Display Mode</th>
<th>Scanning Method</th>
<th>Scanning Direction</th>
<th>Frequency</th>
<th>Tissue Harmonic Echo (THE)</th>
<th>ELST Mode</th>
<th>Scanning Range</th>
<th>Focusing Point</th>
<th>Contact Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hitachi Aloka ProSound F75</td>
<td>B mode, M mode, D mode, FLOW mode, POWER FLOW mode, eFLOW mode, PW mode, THE mode</td>
<td>Electronic curved linear array</td>
<td>Parallel to the insertion direction</td>
<td>5/7/5/10/12 MHz</td>
<td>Broadband Harmonic (BbH)</td>
<td>THE-P/THE-R (optimized penetration/resolution mode)</td>
<td>60°</td>
<td>Up to four focusing points are available</td>
<td>Balloon method, Direct-contact method</td>
</tr>
<tr>
<td>Olympus EU-ME2</td>
<td>B mode, FLOW mode, COLOR FLOW mode, H-FLOW mode, PW mode, THE mode, Elastography (ELST) mode</td>
<td></td>
<td></td>
<td>5/6/7.5/10/12 MHz</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EBUS-TBNA Needles**

<table>
<thead>
<tr>
<th>Article Name</th>
<th>Min. Working Channel</th>
<th>Needle Length</th>
<th>Article Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA-201SX-4021</td>
<td>2.0 mm</td>
<td>20–40 mm</td>
<td>N5432630</td>
</tr>
<tr>
<td>NA-201SX-4022</td>
<td>2.0 mm</td>
<td>20–40 mm</td>
<td>N5432830</td>
</tr>
<tr>
<td>NA-U401SX-4021</td>
<td>2.0 mm</td>
<td>20–40 mm</td>
<td>N5427230</td>
</tr>
<tr>
<td>NA-U401SX-4022</td>
<td>2.0 mm</td>
<td>20–40 mm</td>
<td>N5427530</td>
</tr>
<tr>
<td>NA-U401SX-4025N</td>
<td>2.0 mm</td>
<td>20–40 mm</td>
<td>N5782330</td>
</tr>
</tbody>
</table>

Subject to change without notice. No liability for errors or omissions.

More information at www.olympus-europa.com

--

Enlarged paratracheal lymph node. Power flow mode confirms a vessel in close vicinity to the lymph node.

Enlarged paratracheal lymph node. Power flow mode confirms a vessel in close vicinity to the lymph node.

Staging procedure in a patient with NSCLC.

A patient suspected of having mediastinal lymphoma was referred for EBUS-TBNA and diagnosed as having sarcoidosis.

Staging procedure in a patient with NSCLC.

Subject to change without notice. No liability for errors or omissions.