ProART™ Robotic Transducer

USES
- Robotic Assisted Partial Nephrectomy (RAPN) procedures
- Upper gastrointestinal procedures
- Gynecological surgery
- Intraoperative imaging
- Contrast imaging*

BENEFITS
- Uncompromised image quality for Robotic Assisted Partial Nephrectomy
- Superb control – grasping fin directly over array
- Curved linear array for best field of view
- Uncompromised image quality
- Fully integrated with robotic surgery equipment
- “Extension of the surgeon’s hand”
- Fits through a standard 12-mm trocar
- Easily maneuverable
- Maximum organ contact
- Maximum imaging contact
- Reduces procedure times
- Compatible with modern sterilization methods

Applications
8826 is ideal for intraoperative procedures. Common applications are the investigation of key structures such as the kidney, pancreas, uterus and liver.

Unmatched Transducer Design
The design of the 8826 is completely unique. The transducer features a 36° field of view, the largest on the market today for a transducer of this type and size.

The transducer also features a unique fin situated over the array. This fin placement means that the transducer can be easily gripped by the ProGrasp™ forceps of a robot. This grip is secured because of the fin’s position and also allows for maximum security and maneuverability even in the demanding environment of robotic or laparoscopic surgery.

The transducer is easily maneuverable so the surgeon, or robot, can easily move the transducer to any angle necessary. The transducer’s design also facilitates maximum imaging contact between the array and the anatomy.

Flexible Imaging Options
8826 can transmit at 12, 10, 7.5 and 5 MHz, allowing penetration and resolution to be optimized for each application. The transducer also features superior Spectral Doppler capabilities as well as excellent B-Mode, Color and Power Doppler.

Cleaning and Sterilization
The 8826 can be disinfected by immersion in the solutions listed under Specifications.

8826 can be processed by using STERRAD® 50, 100S, 200, NX and 100NX. The transducer can also be processed using STERIS SYSTEM 1*** and STERIS SYSTEM 1E (when a watertight plug protection device is fitted).

Sterile transducer cover is available.

Safety
8826 is designed and tested in accordance with EN60601-1 (IEC 60601-1), “Medical Electrical Equipment, General Requirements for Safety.” When used with BK Medical’s ultrasound systems, Type BF requirements are met.

* In the USA, contrast-enhanced ultrasound has not been market cleared by the FDA, with the exception of only select cardiac imaging applications.

** STERIS SYSTEM 1 is not market cleared in the USA.

The 8826 transducer is not licensed by Health Canada.
SAFETY
When used with BK Medical’s ultrasound systems, this transducer complies with Safety Standard EN60601-1 (IEC60601-1) Type BF.

FREQUENCY RANGE
12–4 MHz (depending on system)

ENVIRONMENTAL
Operating pressure:
700–1060 hPa (normal atmospheric pressure)
Operating Temperature:
+10 to 40 °C (+50 to 104 °F)
Storage Temperature:
-25 to 70 °C (-13 to 158 °F)
Watertight Immersion Temperature:
Max. 40 °C (104 °F)
Watertight Immersion Time:
Max. 15 hours per 24 hours

STERILIZATION AND DISINFECTION
Complete details and procedures can be found in Care, Cleaning & Safety.

RESISTANCE TO CHEMICALS DURING DISINFECTION
Sterilization processing*
- STERIS SYSTEM 1®** and SYSTEM 1E
- STERRAD® 50, 100S and 200 systems
- STERRAD NX™ and 100NX™ systems
- Ethylene oxide gas† (max. temperature 55 ºC (131 ºF), min. pressure 100 hPa (1.5 psi))

TRADEMARKS
- STERIS SYSTEM 1 and STERIS SYSTEM 1E are registered trademarks of STERIS Corporation.
- STERRAD is a registered trademark and NX and 100NX are trademarks of Advanced Sterilization Products (ASP), a Johnson & Johnson Company.
- Cidex OPA is a registered trademark of Advanced Sterilization Products (ASP), a Johnson & Johnson Company.
- Korsolex is a registered trademark of Bode Chemie GmbH.
- PeraSafe is a registered trademark of Antec International.
- Tristel is a registered trademark of Tristel Pharmaceutical.
- Sterilization processes are harsh and can shorten the life of the product.
- ** STERIS SYSTEM 1 is not market cleared in the USA.
- † A specific EO process for sterilization has not been validated by BK Medical.

SPECIFICATIONS 8826

<table>
<thead>
<tr>
<th>Units</th>
<th>8826</th>
<th>Pro Focus UltraView 2202†</th>
<th>Flex Focus 1202††</th>
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<tbody>
<tr>
<td>B-Mode Frequency MHz</td>
<td>12</td>
<td>10</td>
<td>7.5</td>
</tr>
<tr>
<td>Doppler Frequency MHz</td>
<td></td>
<td></td>
<td>10 - 7.5 - 6 - 5</td>
</tr>
<tr>
<td>Tissue Harmonic Frequency MHz</td>
<td></td>
<td></td>
<td>8.5</td>
</tr>
<tr>
<td>Contrast Frequency MHz</td>
<td></td>
<td></td>
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<tr>
<td>Number of Elements</td>
<td></td>
<td></td>
<td>95</td>
</tr>
<tr>
<td>Radius of Curvature mm</td>
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<td></td>
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</tr>
<tr>
<td>Transverse Plane Aperture mm</td>
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</tr>
<tr>
<td>Transverse Focal Length mm</td>
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<td>Image Plane Aperture mm</td>
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<tr>
<td>Axial Resolution (Measured at 20 mm)* mm</td>
<td>0.4</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Lateral Resolution (Measured at 20 mm)* mm</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
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<tr>
<td>Image Field Sector 36°</td>
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<tr>
<td>Basic Imaging Modes</td>
<td>B, M, Doppler, CFM, Tissue Harmonic Imaging, Contrast Imaging†</td>
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<tr>
<td>Penetration Depth* mm</td>
<td>81</td>
<td>105</td>
<td>120</td>
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<tr>
<td>Frame Rate (Max) Hz</td>
<td>&gt;150</td>
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<tr>
<td>Contact Surface (Acoustic) mm</td>
<td>5 x 29.9</td>
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<tr>
<td>Contact Surface (Overall) mm</td>
<td>9 x 33.2</td>
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<tr>
<td>Size of Transducer mm</td>
<td>80 x 12.2</td>
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<tr>
<td>Weight (Approximate) g</td>
<td>25</td>
<td></td>
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<tr>
<td>Applications (Typical)</td>
<td>Intraoperative</td>
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</table>

† Only available on UltraView and UltraView 800.
‡ Only available on Flex Focus 800
* Measurements according to IEC70 61390 and JIS T 1501. Penetration depth is measured in an ultrasound phantom and recalculated corresponding to a realistic tissue attenuation of 0.5 dB/cm/MHz.
† In the USA, contrast-enhanced ultrasound has not been market cleared by the FDA, with the exception of only select cardiac imaging applications.

### Ordering Information 8826

**ACCESSORIES INCLUDED**
- KE4320: Carrying Case

**ACCESSORIES AVAILABLE**
- UA1404: Leakage Testing kit

**TRANSUDER COVERS**
- UA0067: NeoGuard® Sterile Covers, latex-free (pack of 12)

**TRADEMARKS**
NeoGuard is a registered trademark of CIVCO Medical Instruments Co., Inc.

### 8826 Technical Drawing

All measurements are in mm.

![Technical Drawing of 8826](image)

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**LEGAL MANUFACTURER**
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**Innovative Solutions for Life**
Analogic Corporation creates innovative technology to improve the health and ensure the safety of people around the world. We are committed to providing ultrasound solutions under the BK Medical brand name that advance medicine and save lives.