

605-B40013  
LOMA LINDA, CA.

## ACUSON S3000 ultrasound system

All items listed below are included for this system: *(See Detailed Technical Specifications at end of Proposal.)*

Qty	Part No.	Item Description
1	10441730	<b>ACUSON S3000 Mainframe</b> The ACUSON S3000(tm) ultrasound system mainframe is the new ultra-premium system in the expanding ACUSON S Family(tm) of ultrasound systems. It provides first access to the latest Siemens pioneering technologies. The ACUSON S3000 system is the gateway to Siemens' pioneering technologies now and in the future.
1	10854178	<b>S3000 HELX VC30 SW</b> The HELX software release for the ACUSON S3000(tm) ultrasound system continues to advance the performance and capabilities of the system and ensure imaging performance which meets the most exacting demands. The release features significant image quality advances with new imaging technologies and modes, an enhanced software user interface with "heads up display" and ease of use workflow functionality. Together with the new Siestream(tm) HD hardware, the HELX software takes the ACUSON S3000 system performance to another level. Continuing to deliver on the promises of premium performance and extraordinary technology.
1	10854183	<b>S3000 HELX VC30 Operating Sys Eng</b>
1	10854186	<b>S3000 HELX VC30 English Keyboard</b>
1	10442012	<b>S3000 115V Power Supply</b> Standard power supply for USA
1	10442015	<b>S3000 NTSC Video Interface</b>
1	10442009	<b>S3000 Advanced OB/Gyn Visualization</b> ACUSON S3000(tm) ultrasound system offers the Advanced OB/Gyn Visualization package as a complete offering for the OB/Gyn focused ultrasound clinic. It is comprised of Amnioscopic Rendering method, Advanced fourSight(tm) technology, and 3-Scape(tm) real-time 3D imaging. The package provides a spectrum of basic and advanced features and functions essential for OB/Gyn volume imaging and measurements.
1	10854246	<b>7CF1 Transducer, S3000</b> The 7CF1 transducer offers a broad frequency range and superior image quality, contrast and detail resolution in 2D, 3D, and real-time 3D imaging modes. This transducer capably covers the majority of transabdominal radiology and OB/GYN needs. Small and lightweight, it is ergonomically comfortable and allows easy access to imaging windows. The 7CF1 utilizes a patented ACUSON(tm) micro-pinless transducer connector.

Qty	Part No.	Item Description
1	10442092	<p><b>9EVF4 Transducer (MP), S3000</b></p> <p>The 9EVF4 transducer utilizes a patented ACUSON(tm) micro-pinless transducer connector with 192 elements and a center frequency of 6.2 MHz. Wideband MultiHertz(tm) multiple frequency imaging provides multiple transmit frequencies. Integrated microelectronics combined with a revolutionary SuppleFlex(tm) transducer cable provides a lightweight design to reduce operator fatigue. The 9EVF4 transducer is ergonomically designed for patient comfort and ease of use. The 9EVF4 supports a unique offering by electronically steering the Beta angle of the array for alleviation of user wrist fatigue.</p>
1	10442094	<p><b>4V1 Transducer (MP), S3000</b></p> <p>The 4V1 is a small footprint transducer featuring microCase(tm) miniaturization technology and can be used for a broad range of adult abdominal, OB/GYN, and fetal heart imaging applications. This transducer utilizes ACUSON(tm) patented micro-pinless connector technology and Hanafy lens transducer technology to provide improved resolution and image uniformity. The 4V1 transducer delivers excellent detail and contrast resolution, high sensitivity in color and spectral Doppler modes, independent frequency selection across modes, superior ergonomic design for comfort and access.</p>
1	10442105	<p><b>14L5 Transducer (MP), S3000</b></p> <p>The 14L5 transducer utilizes a patented ACUSON(tm) micro-pinless (MP) connector and is based on Multi-D(tm) matrix array transducer technology for precise beam elevation control and exceptional spatial resolution throughout the field of view as well as unsurpassed image detail, clarity and uniformity. Wideband MultiHertz(tm) multiple frequency imaging provides multiple transmit frequencies. Integrated microelectronics contained in an ergonomically designed microCase(tm) and combined with a revolutionary SuppleFlex(tm) transducer cable provide a lightweight design to reduce operator fatigue.</p>
1	10442107	<p><b>9L4 Transducer (MP), S3000</b></p> <p>The 9L4 transducer utilizes patented ACUSON(tm) micro-pinless (MP) connector and is based on Multi-D(tm) matrix array transducer technology and exceptional spatial resolution throughout the field of view. This multi-row array transducer is contained in an ergonomically designed microCase(tm). This transducer technology with its improved beam profile creates unsurpassed image detail, clarity and uniformity. Wideband MultiHertz(tm) multiple frequency imaging provides multiple transmit frequencies. Integrated microelectronics contained in an ergonomically designed microCase(tm) and combined with a revolutionary SuppleFlex(tm) transducer cable provide a lightweight design to reduce operator fatigue.</p>
1	10442111	<p><b>6C1 HD Transducer, S3000</b></p> <p>The 6C1 HD high-density array transducer will enhance the ACUSON S3000(tm) ultrasound system capabilities. It provides not only the fundamental imaging capabilities such as B-mode, Color and PW Doppler, Color Doppler Energy (CDE), Tissue Harmonic Imaging (THI) and TEQ(tm) ultrasound technology, but also supports advanced technologies such as Advanced SieClear(tm) Spatial Compounding (ASSC) and Dynamic TCE(tm) Tissue Enhancement Technology (DTCE). The transducer technology and design support a frequency range of 6MHz to 1MHz. Both fundamental and harmonic frequencies are supported. Maximum imaging depth is 30 cm.</p>
1	10854166	<p><b>S3000 HD GI Base System</b></p>
1	US_APPS_INC	<p><b>Ultrasound Apps Training 2 days included</b></p> <p>Two (2) Days System Installation Applications Training Two days on-site general system installation applications training to include basic or advanced training on systems and options. Extent and objective of training will be determined with the site prior to the training event. Specific options may require one additional no charge applications day. Additional training may be purchased.</p>
1	L2D	
1	10854105	<p><b>S Family Op Instruct, HELX, English</b></p> <p>S Family Op Instruct, HELX, English</p>
1	10854274	<p><b>S Family Service Manual, HELX</b></p> <p>S Family Service Manual, HELX</p>

Qty	Part No.	Item Description
1	10442057	<p><b>S3000 eSie Fusion imaging</b></p> <p>The ACUSON S3000(tm) ultrasound system eSie Fusion(tm) Imaging software license is an option for the new ultra-premium system expanding the ACUSON S Family(tm) ultrasound system. It provides access to fast and easy fusion of computed tomography (CT) and magnetic resonance (MR) volumes with ultrasound, bringing fusion imaging into new focus for both interventional and follow-up ultrasound examinations. The ability to bring complex cases into the ultrasound exam room provides benefits in enhanced utilization of CT and MR with potential radiation dose reduction. Computed tomography (CT) and ultrasound fusion combines the benefits of real-time ultrasound imaging with the global imaging display of CT. However, with previously available Fusion, patients needed to lie completely still during the entire exam to prevent elaborate and time-consuming manual realignments of the registered volumes. eSie Fusion imaging, which is the automatic fusion of real-time ultrasound with 3D computed tomography (CT) volumes, eliminates this onerous requirement and can be performed via a single click. This approach accelerates workflow and improves the accuracy of image alignment, which can allow the seamless integration of fusion imaging into existing practice. MR volume registration is additionally provided and provides significantly enhanced workflow benefits over previously available Fusion methods. This feature is a Siemens pioneering technology and is exclusive to the ACUSON S3000(tm) Ultrasound System.</p>
1	10851591	<p><b>S3000 eSie Fusion Advanced Kit 1</b></p> <p>The ACUSON S3000(tm) ultrasound system eSie Fusion Imaging Advanced Kit is an optional peripheral for eSie Fusion(tm) Imaging but required if Fusion is required in the CT suite. The eSie Fusion Advanced Kit includes the following: • Magnetic Field Generator with Connector Cable • Magnetic Field Generator Mounting Pole The eSie Fusion Imaging Advanced Kit must be used in conjunction with the Basic Kit Kit (General purpose sensor, Electronics Unit, Cable Clips, Sensor Mounting, USB cable, &amp; Power cable), eSieFusion Imaging software license, and Tracking brackets with or without needle guides. This feature is a Siemens pioneering technology and is exclusive to the ACUSON S3000(tm) Ultrasound System.</p>
1	10851593	<p><b>S3000 eSie Guide for Fusion</b></p> <p>The ACUSON S3000(tm) ultrasound system eSie Guide Imaging Needle Tracking Kit is a required peripheral for eSie Fusion(tm) Imaging with needle guidance. It provides the necessary equipment to track and re-use disposable needles. The ACUSON S3000 system eSie Guide Imaging Needle Tracking Kit includes the following: • Multi-use Needle Sensor • ETRAX Starter Kit with Disposable 16ga Needles</p>
1	10853286	<p><b>4C1/6C1 Track Brkt w/guide, S3000</b></p> <p>The 4C1 tracking bracket with guide is an attachable transducer bracket compatible with the 4C1 and 6C1 transducers. These brackets aid in needle-guided biopsies.</p>
1	10853288	<p><b>4V1 Track Brkt w/guide, S3000</b></p> <p>The 4V1 tracking bracket with guide is an attachable transducer bracket is compatible with the 4V1 transducer. This bracket aids in needle-guided biopsies.</p>
1	10442098	<p><b>4P1 Transducer (MP), S3000</b></p> <p>The 4P1 transducer features Multi-D matrix array transducer technology for precise beam elevation control and exceptional spatial resolution throughout the field of view as well as unsurpassed image detail, clarity and uniformity. Wideband MultiHertz(tm) multiple frequency imaging provides multiple transmit frequencies. This transducer supports cardiac, abdominal and transcranial imaging for the adult patient.</p>
1	10851590	<p><b>S3000 eSie Fusion Basic Kit</b></p> <p>The ACUSON S3000(tm) ultrasound system eSie Fusion(tm) Imaging Basic Kit is required for eSie Fusion(tm) Imaging. This kit provides the necessary additional hardware to run fusion. The eSie Fusion Basic Kit includes the following: • PN10035045 Cable USB connector to TrakStar2 Box • PN10042515 Power Cable for TrakStar2 Box • PN10441627 General Purpose Sensor for Transducers • PN10441680 Cable Clips &amp; Sensor Mounting PN10441624 Magnetic Field Tracking Box - TrakStar2 The eSie Fusion Imaging Basic Kit must be used in conjunction with the Advanced Kit (MR Transmitter and/or Pole for MRT). This feature is a Siemens pioneering technology and is exclusive to the ACUSON S3000(tm) Ultrasound System.</p>

Qty	Part No.	Item Description
1	10442056	<p><b>S3000 Advanced Breast Imaging</b></p> <p>ACUSON S3000(tm) ultrasound system offers the Advanced Breast Imaging package inclusive of eSie Touch(tm) elasticity imaging and Custom Tissue Imaging. eSie Touch elasticity imaging is a real-time qualitative imaging method that calculates and displays the relative stiffness of tissue. Custom Tissue Imaging provides enhanced B mode image quality with improved lateral and contrast resolution for superior ultrasound imaging of the fatty breast.</p>
1	10851575	<p><b>S3000 Virtual Touch Tissue Img</b></p> <p>Virtual Touch(tm) tissue imaging is a real-time dual display imaging mode that utilizes Acoustic Radiation Force Impulse (ARFI) imaging technology to gently displace tissue for qualitative evaluation of relative tissue stiffness of focal changes in tissue, compared to surrounding tissue. The system automatically generates the tissue displacement without manual tissue compression, so that stiffness of deeper lesions can be visualized as compared to conventional Elasticity Imaging techniques. This qualitative view of tissue stiffness is accomplished using axial displacement correlation methods and displays relative stiffness in gray scale or color. Sophisticated Pulse formation and high speed signal processing allows Real-Time ARFI image generation to enhance exam workflow Available with the 4V1, 4C1, 6C1 HD and 9L4 transducers. Exam types: Abdomen, Renal, Breast, Thyroid</p>
1	10855742	<p><b>S3000 Virtual Touch IQ, USA</b></p> <p>The ACUSON S3000(tm) ultrasound system Virtual Touch(tm) IQ software license is a required peripheral for the use of color-coded tissue stiffness map and shear wave velocity measurements on a single image. With Virtual Touch IQ, Siemens adds the third generation of its recognized strain solutions, providing a single image presentation of both qualitative and quantitative assessment of tissue stiffness. Virtual Touch IQ provides immediate visual assessment of lesions and simultaneous quantitative evaluation. It also allows faster and more accurate stiffness quantification.</p>

1 BIOMEDICAL TUITION

# Detailed Technical Specifications

## ACUSON S3000 ultrasound system

Part No. / Product	Description
<p><b>10441730</b> <b>ACUSON S3000</b> <b>Mainframe</b></p>	<p>In keeping with the ultra-premium nature of the ACUSON S3000 system, key technologies with leading features such as Data Transfer to Nuance PowerScribe   360 and Measurement Export are included. Also, the following software packages are included as standard on the mainframe:</p> <ul style="list-style-type: none"> <li>- Advanced SieClear™ spatial compounding provides image quality with stellar detail and contrast resolution. Advanced SieClear compounding offers an industry first with 13 lines of site.</li> <li>- Advanced SieClear spatial compounding in Color &amp; Power Doppler enables ASSC when either Color or Power Doppler is active, bringing the Advanced SieClear spatial compounding image quality advantages to Doppler imaging (available in HELX (VC30) software level and above).</li> <li>- eSieImage™* multi-parameter image optimization technology maintains image uniformity across all patient body types by adaptively compensating for varying tissue attenuation characteristics in real-time during scanning and allows gain and TEQ adjustments in post processing (available in HELX (VC30B*) software level and above)..</li> <li>- Clarify™ Vascular Enhancement (VE) technology uniquely utilizes power Doppler flow information to enhance B-mode imaging. The Clarify VE technology option reduces slice thickness artifact in 2D throughout the field of view and reduces noise within macro and micro-vascular structures to further enhance tissue characterization and contrast resolution as well as improve boundary detection between tissues and clearly delineate vessel walls.</li> <li>- TEQ™ ultrasound technology now offers a sophisticated solution for 2D and Spectral Doppler imaging optimization with a push of a button. TEQ ultrasound technology significantly reduces time spent optimizing imaging performance, while improving the consistency and quality of diagnostic exams.</li> <li>- The ACUSON S3000 system Multi-modality Review software license enables side-by-side comparisons of ultrasound with CT and MR images. The rapid query, retrieval, and side-by-side comparison of multiple modalities may aid in the differential diagnosis of lesions and increase accuracy of follow-up measurements performed in the same plane as well as enhance workflow with immediate reference to CT/MR/Mammograms.</li> <li>- The SieScape™ and Color SieScape™ panoramic imaging option allows real-time acquisition and display of B-mode panoramic images up to 240 cm in length or in angular measurements up to 180 degrees. Large organs and long vessels can be displayed in their full dimension.</li> <li>- Data transfer to Nuance Powerscribe® 360   Reporting enables the ACUSON S3000 ultrasound system to send measurement data at the end of the exam directly to Nuance PowerScribe 360   Reporting via Nuance's Web Services API. The customer is responsible for set up and installation on the PowerScribe 360   Reporting side (creation of custom fields for each desired ACUSON S3000 measurement field in the PowerScribe 360   Reporting database and modification of customer reports to include those custom fields). Customers should contact their Nuance Sales Executive regarding Nuance fees and support services.</li> <li>- Wireless Connectivity includes the hardware and software needed to enable wireless capabilities on the ACUSON S3000 system. This option is only being offered to qualifying sites that meet certain network specifications</li> </ul>

Part No. / Product	Description
<b>10442009</b> <b>S3000 Advanced</b> <b>OB/Gyn Visualization</b>	3-Scape™ real-time 3D imaging provides the essential functionality necessary for performing the standard 3D exam. 3-Scape imaging is fully integrated into the ACUSON S3000 system, providing real-time construction of 3D images during free-hand acquisition. 3-Scape imaging offers multiple rendering methods, an array of editing tools, and 3D storage and retrieval functionality. 3-Scape imaging is available in 2D, THI, and Power modes. Advanced <i>fourSight</i> ™ technology is the sophisticated partner to 3-Scape imaging. Advanced <i>fourSight</i> technology offers broad 3D/4D acquisition, data rendering and post-processing functionality. Functions include MultiSlice, Thick Slice Imaging (TSI), curved top VOI, curved MPR, sub-states, Gradient Light, and Inversion. Amnioscopic Rendering method serves as a complementary function to Advanced <i>fourSight</i> technology by further enhancing the fetus. Its ability to render a volume into the most realistic fetal ultrasound image ever seen before provides unmatched detail and resolution.
<b>10442092</b> <b>9EVF4 Transducer</b> <b>(MP), S3000</b>	The 9EVF4 transducer extends over multiple applications including imaging providing a single-solution transducer for both 2D, 3D and 4D imaging.
<b>10442094</b> <b>4V1 Transducer (MP),</b> <b>S3000</b>	The 4V1 transducer extends over multiple applications providing a single-solution transducer.
<b>10442105</b> <b>14L5 Transducer</b> <b>(MP), S3000</b>	The 14L5 extends over multiple applications providing a single-solution transducer.
<b>10442107</b> <b>9L4 Transducer (MP),</b> <b>S3000</b>	The 9L4 transducer extends over multiple applications including imaging providing a single-solution transducer.
<b>10853286</b> <b>4C1/6C1 Track Brkt</b> <b>w/guide, S3000</b>	<p>The 4C1 and 6C1HD transducer tracking bracket with guide on the ACUSON S3000™ ultrasound system supports eSie Fusion™ Imaging (PN10442057) &amp; eSie Guide Needle Tracking (PN1085515) requiring at minimum the 1.5 Release (VC25A) software upgrade.</p> <p>When the eSie Fusion Imaging Basic Kit (PN10851590) is selected, this bracket must be ordered since it attaches the General Purpose sensor to the transducer.</p>
<b>10853288</b> <b>4V1 Track Brkt</b> <b>w/guide, S3000</b>	<p>4V1 track bracketing with guide on the ACUSON S3000™ ultrasound system supports eSie Fusion™ Imaging eSie Fusion™ Imaging (PN10442057) &amp; eSie Guide Needle Tracking (PN10851593) requiring at minimum the 1.5 Release (VC25A) software upgrade.</p>
<b>10442098</b> <b>4P1 Transducer (MP),</b> <b>S3000</b>	The 4P1 transducer supports cardiac, abdominal and transcranial imaging for the adult patient.
<b>10442056</b> <b>S3000 Advanced</b> <b>Breast Imaging</b>	<p>A unique solution, eSie Touch elasticity imaging allows the user to generate the elastogram by applying gentle sequential compression cycles during standard B-mode imaging. This relative displacement of tissue is displayed as an elastogram in a live dual image display of the grayscale or color image with the standard B-mode image.</p> <ul style="list-style-type: none"> <li>- Unique mapping options in grayscale and color further enhance ease of interpreting the elastogram</li> <li>- Area and Distance ratio measurement capability allow for quantitative comparison of the two images.</li> </ul> <p>Custom Tissue Imaging (CTI) provides a solution for a common problem in breast imaging. The ultrasound B-mode image quality is compromised when examining the fatty breast as the speed of sound in fatty tissue is significantly different and so spatial resolution is compromised. Custom Tissue Imaging corrects for these phase aberrations caused by the speed of sound mismatch and optimizes the image in real-time, resulting in improved lateral resolution and boundary definition.</p>
<b>10851575</b> <b>S3000 Virtual Touch</b> <b>Tissue Img</b>	Export of the measurement data together with quantification data and observations is supported through DICOM SR.