

VAMC PALO ALTO, CA
PO# 640-B44011

ACUSON S2000 ultrasound system

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

Qty	Item Description
1	ACUSON S2000 Mainframe The ACUSON S2000(tm) ultrasound system is a multi-specialty system designed to exceed your expectations - today and into the future. The unmatched ability to deliver comprehensive information to make a differential diagnosis even in the most challenging case makes this the system to have "when you need to know more." The industrial design is conducive to today's busy environments. The home base layout of controls and operator functions on the control panel supports the natural and extended reach of the user and greatly reduces keystrokes and repetitive movements. The flat panel display with articulating arm, control panel height adjustment and side-to-side swivel allow for appropriate positioning and placement to accommodate tight and/or awkward scanning environments. A rear handle and extra transducer storage further extend the product offering into the high end arena. In addition to a lightweight system, the QuikStart standby mode enhances system portability by reducing startup and shutdown times to approximately 30 seconds and 10 seconds respectively.
1	S2000 3.1X SW
1	S2000 Operating Sys, English, 3.1X
1	S2000 English Keyboard 3.1X
1	115V Power Supply
1	S2000 NTSC Video Interface
1	S2000 DVR High quality medical grade JVC BD-X201MS DVR recorder, which allows recording an NTSC or PAL video from the ultrasound system to 4.7GB DVD-R/RW, DVD+R/RW (DVD video format only) disks.
1	S2000 OEM HW 1
1	B/W Printer, Off-Board, S2000 B/W digital printer, UL/CE approved. 256 grayscale with 260 dpi and dot resolution up to 1365 x 1024. 7 user-selectable image sizes: normal, large, small-normal, small-large, square, X1.5, X 1.7 Print capacity of approximately 215 prints/roll. Printing time: 20 seconds 6' printer cable included for off-board location.

Qty	Item Description
1	<p>S2000 General Imaging Technologies</p> <p>The ACUSON S2000(tm) ultrasound system offers the General Imaging Technologies package for the ultimate solution of imaging and workflow needs of today's radiology clinic. The General Imaging Technologies package offers advanced image quality and innovative workflow solutions at a reduced price. Advanced SieClear(tm) spatial compounding, Advanced SieClear spatial compounding in Color & Power Doppler*, eSieImage(tm)* multi-parameter image optimization technology processing (available in HELX (VC30B*) software level and above). , Clarify(tm) vascular enhancement technology, SieScape(tm) panoramic imaging, Color SieScape(tm) panoramic imaging and TEQ(tm) ultrasound technology round off this progressive product offering. *At the time of Price Book finalization, this item was not commercially available. Due to regulatory reasons its future availability cannot be guaranteed.</p>
1	<p>S2000 syngo Auto OB Measurements</p> <p>syngo(r) Auto OB Measurements is an innovative algorithm which recognizes anatomic landmarks for the standard six major fetal structures (CRL, BPD, HL, HC, AC, and FL) and automatically performs these biometric measurements at the touch of a button. The measurement results are also saved to the report.</p>
1	<p>S2000 3-Scape 3D Imaging</p> <p>3-Scape(tm) real-time 3D imaging is fully integrated into the ACUSON S2000(tm) ultrasound 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. When purchased with the ACUSON S2000(tm) Advanced SieClear spatial compounding, 3D Dynamic TCE is available which provides a rendered volume with speckle reduction algorithm applied. The volumes are presented with an increased quality for a diagnostic confidence never before seen in volume imaging.</p>
1	<p>S2000 Advanced fourSight Technology</p> <p>Advanced fourSight 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.</p>
1	<p>7CF2 Transducer (MP), S2000</p> <p>The 7CF2 utilizes an ACUSON(tm) patented micro-pinless transducer connector with 192 elements and a center frequency of 4.2MHz. The primary clinical application for the new 7CF2 4D transducer is for obstetric/gynecology applications with superior image quality, contrast and detail resolution in 2D, 3D, and real-time 3D imaging modes. The 7CF2 may be used for adult abdominal applications that can be addressed with high frequency imaging. The 7CF2 was ergonomically designed for extraordinary smaller size and lighter weight than current 4D transducers on the market today.</p>
1	<p>9EVF4 Transducer (MP), S2000</p> <p>The 9EVF4 utilizes an ACUSON(tm) patented 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 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	<p>4V1 Transducer (MP), S2000</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 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>

Qty	Item Description
1	<p>14L5 Transducer (MP), S2000</p> <p>The 14L5 transducer utilizes an ACUSON(tm) patented 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.</p>
1	<p>9L4 Transducer (MP), S2000</p> <p>The 9L4 transducer utilizes ACUSON(tm) patented 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	<p>14L5 SP Transducer (MP),S2000</p> <p>The 14L5 SP transducer utilizes ACUSON(tm) patented micro-pinless (MP) connector technology and is specially designed for intra-operative applications. Its small, lightweight, offset "L" ergonomically designed form factor allows for easy access in tight imaging conditions. With superior contrast and detail resolution and improved accessibility due to the design, the 14L5 SP may also be used for breast, small parts and musculoskeletal applications where improved access and a small footprint are required. The 14L5 SP has 128 elements with a center frequency of 9 MHz. Sterilizable* High Resolution Linear Array for Special Applications.</p>
1	<p>18L6 HD Transducer (MP), S2000</p> <p>The 18L6 HD (High Density) is a large format, 50mm, linear transducer with a 6 to 18 MHZ bandwidth. The 18L6 HD utilizes Hanafy lens transducer technology providing an industry leading high density (HD) 100 micron pitch for unrivaled contrast and spatial resolution. Additionally, ACUSON(tm) patented micro-pinless (MP) connector technology and Wideband MultiHertz(tm) multiple frequency imaging capabilities set the standard for high frequency imaging. It is built with patented Elastogrip(tm) ergonomic grip coating for unrivaled grip comfort and repetitive stress reduction. A specially designed SuppleFlex(tm) transducer cable provides a lightweight design to reduce operator fatigue. eSieTouch(tm) elasticity imaging is supported on the 18L6 HD.</p>
1	<p>6C1 HD Transducer, S2000</p> <p>The 6C1 HD high-density array will enhance the ACUSON S2000(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 30cm.</p>
1	S2000 USB Footswitch
1	S2000 Paper Manual, English, 3.1X
1	S2000 Operating Instruct., CD, 3.1X
1	<p>Ultrasound Apps Training 2 days included</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>

Qty	Item Description
1	<p>GOV US HANDS ON WKSHP AT CUST FACILITY</p> <p>Up to two 4 hour sessions of customized instruction led by a Siemens Clinical Education Specialist, for government customers, in a workshop setting at the customer's facility or designated facility, Through the use of didactic and/or hands-on training attendees will be able to increase their knowledge and skills to help improve their clinical practice. Workshop sessions must be scheduled consecutively over a 24 hour period. This educational offering must be completed by the later of (12) months from purchase or install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.</p>
1	<p>Additional Manual for Govt-</p>

Incidental Services Associated with this Quotation:

One complimentary biomedical tuition is included with the purchase of this system. This training must be completed before the end of the warranty period.

Detailed Technical Specifications

ACUSON S2000 ultrasound system

/ Product	Description
ACUSON S2000 Mainframe	<p>ACUSON patented micro-pinless connectors along with sophisticated high-density signal processing create image quality unsurpassed in the high end market. The flat panel monitor with ISP (in-plane switching) technology and transducer technology contributes to the image quality surpassing that of the competition</p> <p>The ACUSON S2000 core system DICOM functionality includes: Modality Worklist, Query/Retrieve (Q/R), "in-progress" or "batch" print to DICOM print devices, "in-progress" or "batch" storage of exam images, clips and patient information, Storage Commitment, transfer of performed procedure information from the ACUSON S2000 system to a HIS/RIS system, and Structured Reporting functionality.</p> <p>DICOM Structured Reporting allows organized transfer of calculation data to PACs systems in either supported public elements, or in private elements for measurements not supported by DICOM S/R and is available for OB/GYN, Cardiac and Vascular calculation data. Structured reporting data may be transferred to DICOM Storage Devices or Network File Share</p> <p><i>The DICOM conformance statement for the ACUSON S2000 ultrasound system is available on the Siemens Healthcare website at:</i></p>
S2000 General Imaging Technologies	<p>Advanced SieClear™ spatial compounding offers image quality with unrivaled detail and contrast resolution. Advanced SieClear compounding is a real-time compounding technique which applies multiple lines of sight at greater steering angles. Advanced SieClear spatial compounding in Color & 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). Dynamic TCE™ tissue contrast enhancement technology is a real-time speckle reduction technique that enhances contrast resolution, border detection, and image presentation. eSiImage™* 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).</p> <p>Clarify™ vascular enhancement technology reduces noise within vessels for superior visualization of vessels as well as enhancing tissue characterization for improved contrast resolution and boundary detection. SieScape™ panoramic imaging option allows the 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 for increased on-screen anatomical information. SieScape panoramic imaging extends the field of view to provide a seamless ultrasound image covering an area much larger than a normal transducer aperture. Color SieScape™ panoramic imaging allows the user to create an ultrasound image with an extended field of view during real-time imaging in 2D and Power modes. Color SieScape imaging can demonstrate anatomical relationships of tissue/organ and vasculature. TEQ™ ultrasound technology now offers a sophisticated solution for 2D and Spectral Doppler imaging optimization with a push of a button. The TEQ technology significantly reduces time spent optimizing imaging performance, while improving the consistency and quality of diagnostic exams.</p>
S2000 syngo Auto OB Measurements	<p>syngo Auto OB Measurements is an innovative technology developed by Siemens Corporate Research in collaboration with Siemens Ultrasound. The algorithm has been uniquely trained to be able to auto-measure the structures necessary for measuring CRL, BPD, HL, HC, AC and FL.</p>
S2000 3-Scape 3D Imaging	<p>3-Scape™ real-time 3D imaging option features:</p> <ul style="list-style-type: none"> - Acquisition and display of 3D images in 2D and Power modes - Region of Interest (ROI) acquisition available for selective 3D capture to reduce editing - Independent review of 2D or Power mode within the same volume-rendered 3D image - Four quadrant display of volume rendering and Multi-Planar Reformating (MPR)

/ Product	Description
<p><i>(Continued)</i></p> <p>S2000 3-Scape 3D Imaging</p>	<ul style="list-style-type: none"> - Surface and volume rendering in Surface, Opacity, Min. IP, Max. IP, and Mean IP modes - Electronic editing tools to edit the volume for further optimization - Storage, review and re-editing of 3-Scape imaging volumes - Post processing of volumes with zoom, 2D and Power maps, 2D tint maps, dynamic range and priority controls <p>Unique to the 3-Scape imaging feature is the ability to transfer the volume data sets as clips. All three orthogonal planes are converted to clips as defined by the user. Since there is no DICOM standard for volume data sets, this allows for transfer of an entire volume over the network to any workstation. Each acquired orthogonal plane can be viewed as a clip, thereby reducing the amount of effort necessary for reviewing volume data.</p>
<p>S2000 Advanced fourSight Technology</p>	<p>Advanced <i>fourSight</i> technology offers broad 3D/4D acquisition, data rendering and post-processing functionality. For acquisition, the Advanced <i>fourSight</i> technology offers sub-states which provide factory optimized settings for quick access to the primary rendering needs based on the type of tissue being rendered. These include Spine, Fetal Face, Fetal Heart, and Fetal Brain. Gradient Light is a rendering method which simulates the reflection of light off a surface, resulting in improved depth perception. Inversion mode allows anechoic structures to appear echogenic and echogenic structures to appear anechoic, thereby enhancing the visualization of internal surfaces. Clinical applications could be hydrocephalus, fetal heart, bowel obstruction, bladder, gall bladder and ovaries. MultiSlice format allows the user to select range, slice spacing and format for viewing each slice. The MultiSlice formats support up to 36 slices at once. The Thick Slice Imaging (TSI) enables definition of a view plane and creates a thick slice around the region of interest. The benefit is improved contrast resolution, providing more information in a single image. Curved Top VOI allows the straight line of the render direction to be adjusted to contour the shape of the view plane of the Volume of Interest. The benefit is better alignment with anatomy, resulting in improved rendered result with reduced shadowing artifacts. Curved MPR enables real-time multiplanar reformatting of images into any linear or curved plane. This permits the user to set points along a curved object in order to straighten it, such as the Fetal Spine.</p>
<p>7CF2 Transducer (MP), S2000</p>	<p>The 7CF2 provides a broad coverage of applications in order to cover the majority of transabdominal radiology and Ob/Gyn needs.</p> <ul style="list-style-type: none"> - Applications: OB/GYN, Abdominal, Fetal Echo, Pelvis, Renal <p>Please see the Transducer flyer for specifications.</p>
<p>9EVF4 Transducer (MP), S2000</p>	<p>The 9EVF4 provides a single-solution transducer for both 2D, 3D and 4D imaging.</p> <ul style="list-style-type: none"> - Applications: Abdominal, Renal, OB/GYN, fetal heart, Neonatal Head and interventional procedures such as endometrial biopsy. <p>Please see the transducer flyer for specifications.</p>
<p>4V1 Transducer (MP), S2000</p>	<p>The 4V1 extends over multiple applications including imaging providing a single-solution transducer.</p> <p>Please see the Transducer flyer for specifications.</p>
<p>14L5 Transducer (MP), S2000</p>	<p>The 14L5 extends over multiple applications providing a single-solution transducer.</p> <ul style="list-style-type: none"> - Applications: Small parts, Breast, Musculoskeletal, Extracranial cerebrovascular, and superficial imaging.
<p>9L4 Transducer (MP), S2000</p>	<p>The 9L4 extends over multiple applications including imaging providing a single-solution transducer.</p> <p>Please see the Transducer flyer for specifications.</p>
<p>14L5 SP Transducer (MP), S2000</p>	<p>The 14L5 SP intra-operative and small parts imaging provides a multi-functional, high frequency, linear array transducer.</p> <p>* The 14L5 SP transducer is compatible with the STERRAD Sterilization System</p> <ul style="list-style-type: none"> - Array footprint: 26 mm

/ Product	Description
<p><i>(Continued)</i></p> <p>14L5 SP Transducer (MP), S2000</p>	<ul style="list-style-type: none"> - Maximum field of view: 61mm; 40 degrees in Virtual Format. - Virtual Format imaging mode extends the lateral field of view - Maximum Depth of display: 6cm <p>Multiple frequencies for all modes 2D, M-mode, Harmonics, Color Doppler (CDV and CDE), and PW Doppler.</p>
<p>18L6 HD Transducer (MP), S2000</p>	<p>The 18L6 HD extends over multiple superficial applications.</p> <ul style="list-style-type: none"> - Expanded MultiHertz™ multiple frequency imaging for 2D, Harmonics, M-mode, Color Doppler (CDE and CDV), and PW Doppler - Virtual Format imaging mode extends the lateral field of view - Array footprint: 58 mm - Maximum display depth of 80 mm - Maximum field of view is 40 degrees in sector format.