Line #	Description	Qty		
1	**CX50 2D xMATRIX**	**1**		

Interface:
15.0 inch high resolution display with wide viewing angle
Quick Keys and Active Mode
Laptop style Alphanumeric QWERTY keyboard
8 TGCs and 2 LGCs
Ergonomic carrying handle
Includes AC adapter , power cord and system battery pack
2 USB flash drives on system
80 GB hard drive
Internal DVD RW drive

Architecture:
All-digital compact broadband beamformer, Microfine 2D focusing with Dynamic Focal Tuning that includes Advanced X-Res signal processing, 170 dB full time input dynamic range 18,432 digitally-processed channels, Continuously variable steering in 2D, color and Doppler modes 2D Opt signal processing with 4X multi-line parallel processing and frequency compounding.

Intelligent Controls:
The CX50 has been designed to make portable exams easy and efficient. With a single button, iSCAN technology automatically samples data for a new level of 2D and Doppler optimization iSCAN one-touch Intelligent Optimization, iSCAN one-touch Intelligent Color Optimization, iSCAN Doppler one-touch optimization.

Transducers:
Supports Compact family of transducers featuring PureWave imaging technology in the S5-1, CX7-2t, C5-1, D5CWC. Also supports the high resolution S12-4, S8-3, C8-5 and L12-3 transducers. All transducers provide breakthrough frequency bandwidths and array configurations. These transducers also have ergonomically designed lightweight flexible cables and compact connectors.

Modes:
2D
M-mode
Anatomical M-mode
Color M-mode
Pulsed Wave Doppler
Color Power Angio (CPA)
Continuous Wave Doppler
Invert and Color Invert
Color compare mode
Dual mode
Duplex for simultaneous 2D and Doppler
2D Optimization Signal Processing
Live Compare
Tissue Harmonic Imaging (THI)
Reconstructed zoom with pan (read zoom)

Write zoom
Pulse Inversion Harmonic imaging
Adaptive Doppler
Adaptive Color Doppler
Color Tissue Doppler imaging
Pulsed Wave Tissue Doppler imaging
Active Native Data - manipulation of image data
Cineloop review
Acquisition, storage, and display in real-time and duplex modes of up to 500 frames
On-board workstation-class data management with thumbnail previews and storage of images, loops,and reports. Retrospective and prospective clip capture to internaldrive or removable media
Integrated DVD/CD burning capability for storage of images or export in DICOM, JPEG and .avi for PC compatibility. Philips DICOM viewer option to imbed in media transfer for easy viewing of study on most PCs.
Maintenance and Serviceability
Remote Access for Expedient Clinical and Technical Support
Flexible Service Agreements
Clinical Application and Educational Support
Scheduled Preventative Maintenance and System Optimization

| 2 | **Adult Echo / Live xPlane Clinical Package** | 1 |

Includes Adult Echo and Live xPlane Clinical options

Adult Echo Clinical Option
Tissue Specific Imaging software for adult cardiac ultrasound applications. Display optimization software with Tissue Specific presets for adult cardiac imaging and Doppler applications. Analysis software package includes cardiac imaging protocol measurements and configurable reports and finding codes. Active native data for post-process optimization and advanced XRES adaptive image processing for improved tissue conspicuity. iSCAN intelligent one-button optimization for adaptive gain compensation in 2D, Doppler, Tissue Doppler Imaging and LVO contrast functions. Includes Live compare mode, cardiac High-Q Automatic Doppler Analysis and respiration waveform from chest impedance. Allows operation of S5-1, Compact X7-2t and D2cwc transducers.

Live xPlane Clinical Option
Simultaneously acquires and displays two full-resolution planes, in real time. Allows independent control of tilt and rotation of second plane relative to first plane. Option requires use of Compact X7-2t TEE xMATRIX array transducer.

| 3 | **Vascular Clinical Option** | 1 |

This clinical option includes Tissue Specific Imaging software and SonoCT for Cerebrovascular, Peripheral vascular, abdominal vascular and Transcrainial applications. This clinical option also includes in depth analysis and reporting packages for vascular applications. Freehand 3D is also provide within this clinical option. Allows operation for vascular applications of the C5-1, S5-1, L12-3, L15,7io, L12-5 50 and D5cwc transducers.

| 4 | **NetLink/DICOM 3.0** | 1 |

Provides DICOM 3.0 network Print and Store, Performed Procedure Step (PPS), and Modality Worklist functionality. Networking capability supportable in both wired and wireless environments

| 5 | **Dicom Struct Reporting** | 1 |

Provides adult echo and vascular DICOM Structured Reporting. (Requires appropriate adult echo or vascular clinical options.)

6   **Exam Protocols/Smart Exam   1**

Fast Exam provides easy to use, customizable guides that help the clinician complete studies on every patient. An on screen menu, guides the clinician through the required views for a specific exam type, automatically enters annotation and build the patient report.

7   **Cart with Multi-port Adapter   1**

Highly mobile cart that features hardware module to support transducer switching among up to three imaging transducers at the touch of a button. Includes: 4 swivel wheels with 2 locking casters, rear handle, micro-positioning grips, quick-connect tray, storage shelf, footrest, internal isolation transformer, B&W printer brackets, integrated transducer connector holder, gel holders and cable management. Includes USB hub for additional connectivity.

8   **USA Power Cord   1**

9   **Cardiology Quantification   1**
          Bundle Vision 2012

Includes Cardiac Motion / Mechanics Quantification (CMQ), Strain Quantification (SQ), Region of Interest (ROI) and Intima Media Thickness (IMT) Plug ins.

Cardiac Motion / Mechanics Quantification Plug-in

Uses next-generation 2D speckle tracking technology to provide a robust and objective assessment of Left Ventricular global function and regional wall motion, deformation and timing. Provides ability to extract a wide range of motion parameters from stored datasets at any time after the actual scan, facilitating quality assurance, collaborative clinical decision making and case reviews without the need for rescanning the patient.

CMQ includes a suite of methods either based on 2D speckle tracking (CMQ, free Strain and TMAD methods) or border detection technologies (Simple/CK, Complex/CK, Other). Each method includes a "step by step" user interface and report capabilities for ease of use and fast clinical adoption. Computes regional and global strain rates among other parameters such as rotation and transmural torsion. 2D speckle tracking is based on dense tracking field technology and images acquired from transducers featuring PureWave technology ensures superb tracking performance for enhanced clinical utility. A new image quality confidence index with a user-defined threshold removes untracked segments and further ensures that diagnoses are based on the best possible information. CMQ adopts the LV 17-segment model and produces comprehensive regional and global strain using easy to read bulls eye plots.

The free Strain method offers a simple and intuitive way to assess local tissue motion and deformation. AQ/CK and Tissue Motion Annular Displacement (TMAD) methods facilitate Global Left Ventricle function, volume, and EF assessment.

Strain Quantification (SQ) Plug-in

Used in the evaluation of regional myocardial function; measures the myocardial velocity TDI data set and derives the displacement, strain and strain rate along user-defined M-Lines; includes ability to overlay opening and closing of aortic and mitral valves on SQ curves to evaluate Left Ventricle mechanical events; user-selectable waveform display makes SQ curves easier to read.

Region of Interest (ROI) Quantification Plug-in

Designed to increase the consistency and reliability of acoustic measurements, while reducing the effort required to successfully carry out ROI analysis for contrast imaging, tissue analysis and color Doppler. On compatible files calculates Color Mean and Standard Deviation, Echo mean and Standard Deviation, VI, FI, VFI. Enables user to apply motion compensation algorithm.

Intima Media Thickness (IMT) Quantification Plug-In

Provides automated measurements of intima media thickness in carotids and other superficial vessels; eliminates the laborious process of manually positioning cursors, minimizing the time needed to complete an IMT study.

| 10 | **S5-1 Broadband Phased Array** | 1 |

PureWave crystal Sector array transducer with 5 to 1 MHz extended operating frequency range for adult cardiology, abdominal, vascular, TCD and Acute Care.

| 11 | **CX X7-2T TEE Transducer** | 1 |

X7-2t PureWave matrix array TEE Transducer for superior 2D quality. 7 to 2 MHz extended operating frequency range. Includes M-Mode, PW doppler, CW doppler, harmonics, true electrocautery suppression, and adaptive autocool.

Includes 1 year warranty

| 12 | **D2cwc Static Transducer** | 1 |

Non-imaging 2 MHz PW/CW Doppler transducer for cardiac applications

| 13 | **L12-3 Linear Array Transducer** | 1 |

L12-3 fine pitched, high resolution linear array with 12 to 3 Mhz extended operating frequency range for vascular, small parts, breast, musculoskeletal, contrast regional anesthesia and acute care applications.

| 14 | **English Manual** | 1 |

Operation Manual

| 15 | **English Manual** | 1 |

Operation Manual

| 16 | **QLAB 9.0 NA GI/ Shs Bun** | 1 |

This QLAB package is only provided if purchased in conjunction with an ultrasound system that includes a QLAB Plug-In. *This encompasses QLAB Core Module, Intima Media Thickness (IMT) Quantification Plug-in, Region of Interest (ROI) Quantification Plug-in, Cardiac Parametric (PQ) Quantification Plug-in, Strain (SQ) Quantification Plug-in, Cardiac 2D Quantification (2DQ) Plug-in, Cardiac 3D Quantification (3DQ), Cardiac 3DQ Advanced Plug-in, Mitral Valve Quantification (MVQ) Plug-in, GI 3D Quantification (GI 3DQ) Plug-in Elastography Analysis (EA) plug-in and CMQ (Cardiac Motion /Mechanics Quantification Plug-in).*

Includes QLAB Core Module, Intima Media Thickness (IMT) Quantification Plug-in, Region of Interest (ROI) Quantification Plug-in, Cardiac Parametric (PQ) Quantification Plug-in, Strain (SQ) Quantification Plug-in, Cardiac 2D Quantification (2DQ) Plug-in, Cardiac 3D Quantification (3DQ), Cardiac 3DQ Advanced Plug-in, Mitral Valve Quantification (MVQ) Plug-in, GI 3D Quantification (GI 3DQ) Plug-in, MicroVascular Imaging (MVI) plug-in, Elastography Quantification (EQ) plug-in and CMQ (Cardiac Motion /Mechanics Quantification Plug-in).
QLAB Core Module
QLAB is designed for ultrasound clinicians who require sophisticated analysis of image data

acquired on Philips ultrasound systems.
A large number of Plug-ins is available, offering a variety of powerful 2D/3D advanced quantitative capabilities.
All Plug-ins require the QLAB Core Module.

QLAB core module provides 2D viewer by default.
The 3D Viewer comes with the 3D plug-ins when ordered.
QLAB Core Module functions include review, deletion and quantification of Philips iE33, iU22, CX50, HD15, HD11, HD7, SONOS, HDI and EnVisor C.0 image files;
PC Graphic image/movie files creation in BMP, TIFF, JPEG and AVI;
Ability to remove patient information from QLAB all screens and prior exporting new PC files;
Export of quantification data into Excel-compatible spreadsheet formats;
Built-in on-line help in multiple languages.
Ultrasound data can be sent to QLAB via DICOM network connection, MOD/CD/DVD media or USB Flash Drive/Self-powered MiniDisk devices.

Intima Media Thickness (IMT) Quantification Plug-In
Provides automated measurements of intima media thickness in carotids and other superficial vessels;
Eliminates the laborious process of manually positioning cursors, minimizing the time needed to complete an IMT study.

Compatible with Philips iE33, iU22, HD15, HD11, HD7, EnVisor C.0, SONOS and HDI systems.

Region of Interest (ROI) Quantification Plug-in
On compatible files calculates Color Mean and Standard Deviation, Echo mean and Standard Deviation, VI, FI, VFI. Enables user to apply motion compensation algorithm. Provides basic trending capabilities (off cart only).

Compatible with Philips iE33, iU22, CX50, HD15, HD11, HD7, EnVisor C.0, SONOS and HDI systems.

Cardiac Parametric Quantification (PQ) Plug-In
Allows advanced review and analysis of contrast intensities within the heart;
Provides color-coded representation of contrast intensity and replenishment rate based on either Log or linear scaling.

Compatible with iE33, SONOS and HDI systems.

Strain Quantification (SQ) Plug-in
Used in the evaluation of regional myocardial function; assessment of synchronicity and guidance during bi-ventricular pacing procedure;
Measures the myocardial velocity TDI data set and derives the displacement, strain and strain rate along user-defined M-Lines.

Compatible with iE33, iU22, CX50, HD15, HD11, SONOS and HDI systems.

2D Quantification (2DQ) Plug-in
Display of 2D ultrasound images;
Semi-automated border detection for cardiac chambers and vessel cavities;
Computes Areas, Volumes and advanced parameters for LV systolic and diastolic function including, LV Ejection Fraction (EF) and Fractional Area Change (FAC);

The Peak Ejection Rate (PER), Peak Rapid Filling Rate (PRFR) and Atrial Filling Fraction (AFF) are also reported;

Color Kinesis (CK) tool for provides color-coded visualization of global and regional wall motion;

TMAD allows visualization and quantification of Atrio-Ventricular Annulus planes Motion in order to assess cardiac global function in fast and reproducible way to facilitate trending report.

Compatible with Philips iE33, iU22, CX50, HD15 and HD11 systems.

Cardiac 3D Quantification (3DQ) Plug-in

Provides easy access to Live 3D, 3D Zoom, Full Volume and 3D Color data sets from the iE33, iU22 and SONOS 7500 Live 3D systems;

Offers viewing, cropping, slicing and quantification including distance measurements, area, Bi-plane LV Volume, Ejection Fraction (EF) and LV Mass calculations;

3DQ also provides Multiplanar Reconstruction (MPR) views for unlimited anatomical planes from 3D volume and new 3D iSlice generation.

Compatible with Philips iE33, iU22 and SONOS7500 systems.

Advanced 3D Quantification (3DQA) Plug-in

Extends the diagnostic power of Live 3D Echo by providing the first semi-automated, on-cart and off-cart analysis of true LV volumes—using all the voxels to generate a full 3D endocardial border;

Cardiac 3D Quantification Advanced (3DQ Advanced) revolutionizes echo quantification and extends the diagnostic power of Live 3D echo by providing the first semi-automated, on-cart and off-cart analysis of true LV volumes—using all the voxels to generate a full 3D endocardial border. This is a true 3D border with higher accuracy and less dependency on LV shape assumptions than conventional methods, which rely on sparse view analysis.

3DQ Advanced waveform display provides accurate data for assessing global function based on LV volume, ejection fraction and stroke volume. Additionally, 3DQ Advanced allows simultaneous display of 17 regional waveforms, enabling temporal comparisons between segments.

MultiPlanar Reconstruction (MPR) views provides unlimited anatomical planes from 3D volume;

New iSlice generation run in the 3D viewer and is compatible with all Philips Live 3D dataset including color data, provides highly flexible short and long

axis slicing tool and display up to 4x4 equally spaced MPR views to facilitate LV function visualization assessment;

Measurements of LV endocardial Volumes, Stroke Volume (SV) and true 3D ejection fraction (EF) using a semi-automated border detection in 3D space;

Computes global and regional LV volumes based on ACC 17 segments model;

Displays global LV volume waveform and provides selective display of 17 regional volume waveforms;

Offers timing assessment for each 17 minimal regional volumes and determine a synchronicity index for all volume segments or a user-selectable group of volume segments;

Provides comprehensive report with summary of synchronicity indexes and displays regional Timing and Radial Excursion Parametric Images in Bull's eye representation.

iCrop capabilities with the 3D volumes.

Mitral Valve Quantification (MVQ) Plug-in

The Mitral Valve Quantification plug-in (MVQ) adds precise 2D and 3D quantification of the mitral valve anatomy and associated structures based on data acquired with Philips Live 3D Echo and the X7-2t transesophageal transducer;

Based on the precise Live 3D TEE information, the MVQ plug-in provides a clinical decision support tool to improve diagnostic confidence, surgical planning, communication between clinicians and for the patient, and follow-up care.

Compatible with the Philips iE33 system and Live3D TEE Transducer.

GI 3DQ Plug-In
Review and display 3D data sets from the Philips iU22, iE33 and HD11 systems;
Includes MPR (Multiplanar Reconstruction) capability;
Can display as 1-up (full volume), 4-up (volume/MPR), or Direct iSlice display);
Also provides MPR rotation, basic crosshair control, rotation and movement; crosshair and MPR border graphics controls, pan and zoom controls, and export of BMP, JPEG, TIFF and AVI files;
Rotation speed control, Elevation resize for freehand volumes, Linear Measurements, Ellipse Measurements, Stacked Contour Measurements, Region of Interest (ROI) Analysis;
Works with Matrix and Mechanical Volume Transducers.

MicroVascular Imaging (MVI) Plug-in
MVI uses specially designed post-processing software to map contrast agent progression. This software plug-in measures changes in the image from frame to frame, suppressing background tissue signals and capturing additional contrast data. The additional data obtained using MVI dramatically enhances vessel conspicuity.

Elastography Quantification (EQ) Plug-in
Perform parametric imaging and strain ratio analysis. Parametric imaging calculates relative strain with respect to a user defined reference region. Strain ratio allows calculation of relative strain of two regions of interest over time.

Cardiac Motion/Mechanics Quantification Plug-in
Based on 2D speckle tracking technology, CMQ provides a method for assessing global and regional cardiac function. It offers a suite of measurements and parametric displays to analyze trans-myocardial mechanics without Tissue Doppler imaging angle dependency limitations. Using the 17-segment ASE left ventricular model, CMQ provides additional information for many clinical applications such as ventricular wall motion and mechanical synchrony assessments.

Compatible with the Philips iE33, iU22, CX50, HD15 systems files.

PC requirements for all QLAB plug-ins:

• Processor: Intel Core 2/Xeon, AMD Athlon 64/Opteron or greater
• Operating System:
- Windows XP Pro Service Pack 3, 32-bit
- Windows 2003 Server, 32-bit
- Windows 2008 Server R2, 32-bit
- Windows Vista, 32-bit
- Windows 7, 32-bit or 64-bit
• Memory: 2 GB RAM
• Graphics Card: 32 64 MB or greater with H/W accelerated OpenGL support and Pixel Shader 3.0 (Intel video cards may work but are not supported)
• Hard Drive: 80 GB HD with 7200 RPM
• Monitor: Minimum 1024 x 768 resolution (SVGA) and capable of 24-bit or 32-bit color display
• Media:
- CD-ROM/DVD Drive for transferring files from iE33, iU22, HD11 XE, HD11, HD15, HD9, CX50 and EnVisor ultrasound systems
- 640 MB 3.5-in magneto-optical drive for transferring files from HDI ultrasound systems
- 1.2 to 2.3 GB 5.25-in magneto-optical drive for transferring files from SONOS ultrasound systems
- USB port for transferring files from iE33, iU22, HD9, HD15, and CX50 ultrasound systems
• Mouse with a scroll wheel and a standard Microsoft keyboard

1 Day PAS Onsite - Ultrasound system or upgrade onsite training provided by a PAS (Product Applications Specialist) for specific system applications or upgrades; not per modality. *Education is provided Monday - Friday during normal business hours.* Note: Philips Healthcare personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation. The training sessions should be attended by the appropriate healthcare professional as identified by the department director. *Repeat training for staff non-attendance will not be accepted.* Site must be patient-ready to meet training expectations. All onsite training day expires within 90 days from system or upgrade installation date. Exceptions are for 3D Stress onsite training (which expires 9 months from system or upgrade installation date) and Fusion & Needle Navigation onsite training (which expires 180 days from system or upgrade installation date).

| 18 | 2 Day ENT TEE U w/Travel | 1 |

2 Day Entitlement TEE University with Travel - A variety of Live 3D TEE University course offerings are available to meet your educational needs. Live 3D TEE provides cardiologists, anesthesiologists, and cardiac surgeons novel and exiting realistic views to aid in patient care. The 2 Day ENT TEE University Tuition includes both the tuition and the corresponding travel package.

Entitlement University Tuitions expire within 365 days from system or upgrade installment date. Due to travel and scheduling requirements, a twenty-one (21) day notification of cancellation is required or training / education entitlements will be forfeited. Curriculum is subject to change without notice.

Travel & Accommodations for one (1) registered attendee. Includes one (1) participant's airfare from a North American customer location to a Philips North America Ultrasound Clinical Education training location with modest lodging, ground transportation and meal expenses for up to 2 days. Breakfast/dinner are provided by the hotel and lunch/breaks are catered by Philips Healthcare. All other expenses will be the responsibility of the attendee (ie. Baggage fees, meals while traveling, transportation to and from customer's home airport). Details are provided during the scheduling process.

| 19 | 1st SVC Manual for Gov | 1 |

| 20 | Trade in Allowance | 1 |

Customer represents and warrants that (i) Customer has, and shall have when title passes, good and marketable title to the equipment being traded in and (ii) has the authority to effect such trade in.
Product: SONOSITE SONOSITE UL
Serial Number: 0316 NC
Manufacturer: SONOSITE