



PHILIPS

Ultrasound

Compact 5000 series

Compact without compromise

Philips Compact ultrasound system 5000 series specifications

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1. Introduction

Philips Compact Ultrasound System 5000 series is built to go beyond the capabilities of our earlier compact ultrasound products, optimizing both portability and performance. It not only provides effortless care from anywhere, it also helps clinicians circumvent logistical challenges that can limit higher patient throughput.

In addition to portability, the scalable 5500 and 5300 series models are built using the latest advancements in ultrasound technology to deliver premium cart-level image quality in compact form. They are also clinically versatile, featuring abdominal, cardiac, OB/GYN and vascular functions to meet a wide range of patient needs.

Offering consistency across Philips EPIQ and Affiniti systems, the Compact 5000 series shares its common workflow with a user-centric control panel featuring a touchscreen

interface and on-screen menu controls. The Compact 5000 series was designed and constructed for mobility and cleanability with touchscreen, trackpad, digital TGC and sealed control panel.

With a feature-rich core, a range of diagnostic solutions, real-time collaboration capabilities and wireless connectivity, the Compact 5000 series is one of our most robust compact systems on the market.

1.1 Exam types*

- Abdominal
- Obstetrical
- Fetal echo
- Cerebrovascular
- Vascular (peripheral and temporal TCD)
- Abdominal vascular
- Gynecological and fertility
- Small parts and superficial
- Musculoskeletal
- Pediatric general imaging
- Prostate
- Echocardiography (adult, pediatric, fetal)
- Stress echocardiography
- Transesophageal echocardiography
- Vascular Surgical imaging
- Contrast imaging
- Bowel imaging
- Strain elastography
- Ocular
- Breast
- Urology
- POC



EPIQ



Compact 5000 series



Affiniti

* Defined as anatomical areas, organs or patient types for which the system has optimized settings.

2. System overview

2.1 System architecture

- Offers up to 4,718,592 total digital channels
- Ultra-low noise, wide dynamic range, 280 dB, digital broadband acoustic beamforming with proprietary architecture
- Powerful distributed multi-core processing architecture capable of achieving 225 x 109 40-bit Multiply-Accumulates/second
- Includes 512 GB drive for patient study storage
- Support for transducer frequencies up to 22 MHz
- Operating system supports Windows 10 IoT Enterprise
- Optimized for high definition 15.6" 1920x1080 LCD panel
- Designed to support multiple array configurations: curved, linear, sector and 2D xMatrix TEE
- Contrast imaging uses both Pulse Inversion and power modulation technologies
- Supports depths from skin line (using zoom function) to 30 cm
- Supports strain wave elastography
- Philips SonoCT real-time compound imaging
 - High-precision beam-steered image compounding that acquires more tissue information and reduces angle-generated artifacts
 - Up to nine lines of sight, obtained by steering the ultrasound beam – available on linear, curved and tightly curved arrays and mechanical volume arrays
- WideSCAN capability to expand field of view during SonoCT imaging
- Trapezoid capability
- SonoCT capability available during contrast imaging modes
- Needle Visualization on selected transducers
 - Improves the visibility of needles in the region of needle enhancement in the ultrasound image
 - Provides options for needle approach and various degrees of needle paths and angles
- Variable xRes is an extension of Philips exclusive xRes speckle noise reduction feature that allows the user to select progressive amounts of noise reduction, edge enhancement and textural smoothing. Available with specific transducers under certain tissue-specific presets, users have the option to select the imaging characteristics of their choice from crisp to smooth tissue textures, providing enhanced visualization of target anatomic structures.
- Philips adaptive broadband flow imaging
- Doppler bandwidth that automatically adjusts for outstanding flow sensitivity and resolution
- Advanced dynamic motion suppression algorithms that reduce flash artifacts
- Fully independent triplex multiple mode operation for ease of use during Doppler procedures
- Auto Doppler flow optimization for carotid/arterial applications using linear array transducers
 - Automatically adjusts color box position and angle
 - Automatically adjusts PW sample volume placement and angle
 - Includes Auto Flow Tracking for automatic angle correction with sample volume movements
- Advanced stress echo applications
 - Stress protocols with up to ten stages
 - Forty views per stage by five modes
- Multi-application SmartExam workflow protocols
 - Stress echo, echo, abdominal, small parts, OB/GYN and vascular applications
 - Step-by-step on-screen guidance during exam
 - Full user customization
 - Record function for creation of custom protocols
 - Automatic mode switching including 3D
- Time to imaging
 - Power up from off: approximately 110 seconds
 - Power up from sleep mode: approximately 20 seconds
 - Immediate return to imaging with transport mode disabled after raising system monitor lid
- System imaging time
 - Up to 30 minutes with internal system battery
 - Up to 2.0 hours with optional compact cart batteries



2.2 Imaging formats

- 2D linear: WideSCAN with SonoCT
- 2D curved: WideSCAN with SonoCT
- 2D sector
- 2D virtual apex sector imaging with wide field of view
- 2D trapezoid
- Dual 2D
- Panoramic imaging
- 3D/4D volume Imaging
- 3D full volume
- 2D, MPR and volume (not for echocardiography examinations)
- Dual volume for full volume, 3D zoom and iCrop (not for echocardiography examinations)
- MaxVue image format
 - Allows use of entire monitor viewing area for displaying image with a push of a button
 - Uses a high-definition resolution and an aspect ratio of 16:9

2.3 Imaging modes

- 2D grayscale imaging with advanced pulse coding, pulse shaping and frequency compounding technologies
- M-mode
- M-mode color Doppler
- M-mode tissue Doppler
- M-mode trapezoid
- Anatomical M-mode
- Tissue Doppler Imaging (TDI)
- TDI M-mode
- Adaptive Doppler
- Adaptive broadband color flow
- Color compare mode
- 3D imaging
- 3D imaging with Color Doppler/CPA/DCPA
- 4D imaging
- Tissue Harmonic Imaging (THI) with pulse inversion technology
- Multivariate Tissue Harmonic Imaging including pulse inversion technology
- Left ventricular opacification (LVO) with pulse inversion and power modulation technologies
- SonoCT beam-steered real-time compound imaging
- Harmonic SonoCT imaging
- Up to five levels of xRes adaptive image processing technology
 - Variable settings available to the user
- Intelligent scanning with one-button TGC and gain optimization (i.e., adaptive gain compensation – AGC)
- AutoSCAN with adaptive gain compensation (AGC) for real-time frame-by-frame TGC optimization
- Simultaneous 2D M-mode
- Color Doppler
- Color Power Angio imaging (CPA) and directional CPA
 - High resolution option available in relevant clinical applications
- Strain-based elastography

- High-PRF pulsed wave (PW) Doppler
- Duplex and simultaneous 2D/PW Doppler
- Duplex continuous wave (CW) Doppler
- Duplex, color flow, CW Doppler
- Duplex 2D, CPA, color flow, PW Doppler
- Auto Doppler optimization: Auto PW Doppler, color Doppler, flow optimization for one-button angle correction and steering
- Independent triplex mode for simultaneous 2D, CPA, color flow, PW Doppler
- Dual imaging with two workflow choices: single or dual buffer
- Mixed mode display with one image live while other is frozen; for example, 2D/2D, 2D/color, color/color, color/CPA
- High definition zoom (write zoom)
- Reconstructed zoom with pan (read zoom)
- Panoramic imaging – transducer dependent
- SonoCT panoramic imaging with xRes and harmonic modes
- Chroma imaging in 2D, 3D, QLAB MPR and iSlice, panoramic, M-mode and Doppler modes
- Live MVI
- Spatio-temporal Image Correlation (STIC)

M-mode

- Available on all imaging transducers
- Anatomic M-mode available on all imaging transducers
- TDI M-mode available in cardiac applications
- Selectable sweeping rates
- Time markers: 0.1 and 0.2 seconds
- Acquisition zoom capability
- Selectable display format prospective or retrospective (1/3-2/3, 1/2-1/2, 2/3-1/3, side-by-side, full screen)
- Chroma colorization with multiple color maps
- Cineloop review for retrospective analysis of M-mode data 256 discrete gray levels

2D imaging

- Available with all imaging transducers
- Adjustable sector width and position during live imaging
- Ability to invert image left and right, top and bottom
- User-adjustable receive gain
- LGC (lateral gain compensation) on cardiac sector transducers
- Selection between one and eight focal zones
- Dynamic range or echo compression transducer is imaging preset dependent
- Gray Maps
- Chroma imaging providing colorized luminance maps
- Acquisition zoom (HD zoom): ability to position the zoom ROI anywhere within the image and change the height and width of the zoom ROI
- Display zoom and magnify on live or frozen images up to eight times
- Three levels of frame rate
- Tissue optimization
- Contrast resolution enhancement

- Tissue Harmonic Imaging (THI)
- SonoCT imaging
- Post-processing includes gain, dynamic range, up/down invert, right/left invert, zoom, gray map and Chroma map
- Live Compare imaging: side-by-side comparison of 2D images where the current live image is compared to a stored image from the same study or retrieved multimodality image
- WideSCAN or trapezoid imaging
- Next-generation xRes technology
- Persistence (frame averaging)
- Grayscale standard display
- AutoSCAN with adaptive gain compensation (AGC) for real-time line-by-line TGC optimization

Tissue Harmonic Imaging (THI)

- Provides second harmonic processing to reduce artifacts and provides high quality images
- Multivariate pulsing including patented pulse inversion phase cancellation technology for increased detail resolution during harmonic imaging
- Available in all clinical applications
- Extends high performance imaging capabilities to all patient body types
- Support of SonoCT (Harmonic SonoCT) and xRes modes

Color Doppler

- Available on all imaging transducers
- Color gain
- Region of Interest (ROI)
- Frequency Optimization: fixed transmit/receive frequencies including adaptive flow
- Seventeen selectable baseline positions for CV, nine selectable baseline positions for GI, OB/GYN
- Baseline invert
- B/W suppress
- Color blending
- Color compare dual display (B/W on left, color on right)
- Color map
- Color persistence
- Color trapezoid
- Flow optimization: GI, OB/GYN
- Output power
- Magnify (range from 0.8X to 8X)
- Scale sector width and position on curved and phased array transducers
- Simultaneous mode during PW mode
- Smoothing
- Ability to steer between $\pm 20^\circ$ steer angle on linear array
- Variance
- Wall filter
- Write priority
- Zoom
- Cineloop review with full playback control
- Advanced motion suppression with intelligent algorithms; adapts to various application types to selectively reduce color motion artifacts

- 256 color bins
- Post-processing includes baseline, color invert, color map, hide color, write priority, blend, variance and zoom
- Parallelogram steering on linear array transducers; three angles on L12-5 50 mm and L18-5, twenty-one angles on L12-3 ERGO, L12-4 and L15-7io
- Trackpad -controlled color Region of Interest: size and position
- Maps, filters, color sensitivity, line density, smoothing, echo write priority, color persistence, gain and baseline optimized automatically by exam type or is user-selectable
- Velocity and variance display
- Color invert in live and frozen imaging
- Frequency optimization control for spatial resolution and penetration optimization
- Color and 2D line density control
- Automatically adapts transmit and receive bandwidth processing based on the color box position, providing exceptional sensitivity and color resolution
- Color Doppler PRF maximum 34 KHz, dependent on transducer and clinical application

Color Power Angio imaging (CPA)

- Automatically adapts transmit and receive bandwidth processing based on the color box position, providing excellent sensitivity and color resolution
- Highly sensitive mode for small vessel visualization
- Available on all imaging transducers for general imaging and OB/GYN
- Cineloop review
- Multiple color maps
- Individual controls for gain, filters, sensitivity, echo write priority and color invert
- Adjustable CPA Region of Interest: size and position
- User-selectable persistence
- User-selectable blending on/off
- Cineloop review with full playback control
- Advanced motion suppression with intelligent algorithms; adapts to various application types to selectively eliminate virtually all color motion artifacts
- 256 color bins
- Post-processing includes hide CPA, write priority, invert, DCPA map, blend and zoom
- Parallelogram steering on linear array transducers; three angles on L12-5 50 mm and L18-5, twenty-one angles on L12-3 ERGO, L12-4 and L15-7io
- Trackpad-controlled color Region of Interest: size and position
- Maps, filters, color sensitivity, line density smoothing, echo write priority, color persistence gain and baseline optimized automatically by exam type or is user-selectable
- Velocity and variance display
- Color invert in live and frozen imaging
- Frequency optimization control for spatial resolution and penetration optimization
- Color and 2D line density control

- Automatically adapts transmit and receive bandwidth processing based on the color box position, providing optimal sensitivity and color resolution
- CPA PRF maximum 34 KHz, dependent on transducer and clinical application

MicroFlow Imaging (MFI)

- Highly sensitive imaging mode designed to detect slow and weak blood flow anatomy in tissue; transducer- and preset-dependent

Spectral Doppler

- Display annotations including Doppler mode, scale (cm/sec) Nyquist limit, wall filter setting, gain, acoustic output status, sample volume size, normal/inverted, angle correction and grayscale curve
- Ultra-high-resolution millisecond spectral FFT rate
- Angle correction with automatic velocity scale adjustment
- Adjustable velocity display ranges
- Nine position shifts (including 0)
- Normal/invert display around horizontal zero line
- Five selectable sweep speeds: Min, Slow, Medium, Fast and Max
- Selectable low-frequency signal filtering with adjustable wall filter settings
- Selectable grayscale curve for optimal display
- Selectable Chroma colorization maps
- Selectable display format prospective or retrospective 1/3-2/3, 1/2-1/2, 2/3-1/3, side-by-side, full screen
- Steering available to up to 90° (+/- 45°), dependent on transducer and clinical application
- Doppler review for retrospective analysis of Doppler data
- 256 discrete gray levels
- Post-processing includes gain, compress, invert, baseline, angle correct, Quick angle, display format, sweep speed, reject, Chroma map
- Available on all imaging transducers
- Adjustable sample volume size: 1.0-20 mm (transducer-dependent)
- Simultaneous or duplex mode of operation
- Simultaneous 2D, color Doppler, pulsed Doppler
- High-PRF capability in all modes including duplex, simultaneous duplex and triplex
- PRF range between 200 Hz-34 KHz, depending on transducer and clinical application
- 50 dB or more gain available to the user, depending on clinical application
- iSCAN optimization that automatically adjusts scale and baseline

Auto color and Auto Doppler

- In live imaging, provides the following capabilities
 - Automatically adjusts color box position and angle
 - Automatically adjusts PW sample volume placement and angle
 - Includes Auto Flow Tracking for automatic angle correction with sample volume movements
 - Automatically adjusts PW scale and baseline

- When image is frozen and Doppler is active, automatically adjusts PW scale and baseline
- Auto color and Auto Doppler is available on the linear transducers L12-3 ERGO, L12-4, L12-5 50, L18-5, and L15-7io in carotid/arterial vascular applications
- Auto Doppler is available on the curvilinear transducers C5-1, C6-2, C8-5, C9-2, C9-4v, C10-3v, V6-2

Steerable Continuous Wave (CW) Doppler

- Available on all cardiac applications using sector transducers
- Steerable through 90° sector
- Maximum velocity range 19 m/sec (transducer-dependent)
- iSCAN optimization that automatically adjusts scale and baseline

Tissue Doppler Imaging (TDI/TDI PW)

- Available on all cardiac imaging transducers
- Frame rate control: high frame rate acquisition of tissue motion (up to 240 fps); transducer- and preset-dependent
- TDI gain, TGC and LGC compatible
- TDI Opt: optimized transmit and receive frequencies
- Eight maps
- TDI M-mode and TDI-PW available, dependent on transducer and clinical application

iRotate TEE echo

- Ability to image in 2D and rotate the image without moving the transducer
- Home rotational key
- High frame rate rotational imaging
- Available on X8-2t and X7-2t transducers only

3D/4D and MPR imaging (Volume transducers)

- Volume display with surface rendering (transparency, brightness and lighting controls)
- TrueVue Volume 3D rendering display delivers lifelike image display, allowing the user to place the light source anywhere within the 3D volume
- GlassVue 3D rendering goes beyond the surface, revealing internal structures
- TouchVue is an easier, more intuitive method of 3D volume manipulation – just using simple finger gestures on the system touchscreen allows the user to control 3D volume rotation in all axes
- Tilt feature offered on the 3D9-3V provides incremental lateral steering of the 2D image plane to the right or left
- Multiplanar reconstruction (MPR) view display
- Specialized algorithms and maps improve 3D display
- aReveal automatically sculpts away data proximal to the fetal face by recognizing the geometry of the skull
- FlexVue trimming enables rapid visualization of slices or planes within the acquired 3D data set
- FlexVue supported on 3D9-3v and V6-2 transducers
- FlexVue supports three trace types: straight, curved and continuous

- Trace types can trim from above the trace line, below the trace line or bilateral (above and below the trace line)
- Orthogonal view allows anatomic viewing from multiple perspectives
- Cropping tools on both volume and multiplanar reconstruction (MPR) views
- Slice control on MPR and volume displays
- Supported by SonoCT and xRes modes to reduce noise artifacts
- aBiometry Assist utilizes anatomical intelligence technology for automatic measurements of the most commonly used fetal biometry parameters BPD, OFD, HC, AC and FL
- Resize control that adjusts for different sweep speeds
- On-screen orientation markers

Spatio-Temporal Image Correlation (STIC)

- Available on V6-2 transducer
- Automated volume acquisition of fetal cardiac cycle allowed
- Grayscale and 3D color
- CPA and Directional CPA (DCPA)
- Default 25° elevation angle
- User-configurable acquisition time
- Ability to stop acquisition and return to standby
- Ability to accept or reject detected heart rate
- Compatible with QLAB quantification software

Panoramic imaging

- Real-time extended field-of-view composite imaging, acquired in fundamental or SonoCT mode
- Ability to acquire composite image in xRes mode
- Ability to back up and realign the image during acquisition
- Full zoom, pan, cine loop review and image rotation capabilities
- Auto fit of composite image
- Distance, curved-linear distance and area in review mode can be measured with distance marker displayed via skin-line ruler
- Ability to display or remove skin-line ruler
- Cine loop review that allows measurement on individual frames
- Scaling information included for connectivity prints allowing for measurements on a workstation
- Available on linear and curved array transducers (not available on endovaginal transducers)

Contrast imaging – cardiovascular

- System optimized for left ventricular opacification
- One-touch solution (one-button access in Adult Echo preset) with settings for bolus and infusion
- S5-1 broad bandwidth pulse inversion and power modulation technologies for high sensitivity
- LVO on and off and contrast optimization choices and transmit power settings that can be saved with Gain
- Low MI contrast supported on the S5-1 transducer
- LVO contrast supported on the S5-1 and S4-2 transducers

Contrast imaging – general imaging

- System optimized for detecting contrast agent signatures as they are approved for use
- Contrast modes available on C5-1 and eL18-4 transducers
- Live MicroVascular Imaging (MVI)
- Up to eight Chroma maps for enhanced contrast imaging
- Mid-MI contrast modes available on C5-1 transducers
- Pulse modulation contrast imaging available with SonoCT and xRes technologies
- Touchscreen display timer
- Advanced non-linear pulsing schemes with xRes for increased contrast sensitivity
- High frequency contrast capability
- Flash imaging
- Dual imaging mode for simultaneous fundamental and contrast displays
- Dual imaging contrast mode supports simultaneous mirrored calipers duplicating measurements on both the fundamental and contrast displays
- ECG/timed triggering
- Long loop capture mode during contrast procedures (3-10 minutes)
- QLAB ROI and MVI display

Strain-based elastography

- Strain-based elastography for breast and gynecological imaging
- Available for breast imaging on the L12-5 50 and eL18-4 transducers
- Available on the C10-3v and C9-4v transducers for gynecological and pelvic imaging
- One-touch entry into elastography mode
- Elastogram applied as a Region of Interest box with user control of size and location through entire field of view
- Indicator for compression level
- Display options
 - Single-screen 2D with elastogram
 - Side-by-side display of 2D image and 2D with elastogram
 - Shadow duplication (size compare) and measurement capability in side-by-side display
- Distance and area tools
- Duplication from either side of the display
- Eight selectable elastogram display maps
- Ability to hide or show the elastogram display
- Blend capability to increase 2D visibility through elastogram display
- Four smoothing selections
- Five persistence selections
- Two dynamic resolution system (DRS) selections to alternate between elastogram resolution and penetration
- Four dynamic range selections for elastogram display
- Two elastogram optimization settings for different tissue compositions
- AI – anechoic imaging for enhancing areas without ultrasound signals such as cystic and complex cystic structures
- Stiffness measurement available

3. System controls

Philips “portfolio approach” user experience provides readily accessible and logically grouped primary controls along with an easy-to-learn graphical user interface.

3.1 Optimization controls

2D grayscale imaging

- Smart TGC: pre-defined TGC curves optimized for consistently excellent imaging with minimal TGC adjustment
- Lateral gain compensation (LGC) and Smart LGC available on cardiac sector transducers
- Adjustable temporal resolution and spatial resolution with DRS control
- Selection between one and eight transmit focal zones
- 16-level digital reconstructed zoom with pan capability
- High definition zoom that concentrates all image processing power into a user-defined area of interest
- Includes HD Zoom Pan
- Cineloop image review
- Selectable 2D compression settings
- Tissue aberration control on selected transducers and presets
- Sector size and steering control for sector and curved array image formats
- Selectable 2D line density with DRS control
- Dual imaging with either independent cineloop buffers or split screen imaging
- Dual imaging with color compare
- Dual imaging with fundamental and contrast optimization
- Chroma imaging with multiple color maps
- 256 discrete gray levels
- Live MVI

Real-time image compounding – SonoCT

- Available on all imaging transducers except sector array
- Provides high resolution algorithms for advanced speckle noise reduction, refined tissue pattern displays and fine border definition
- Reduced clutter and artifacts
- Reduces speckle noise and enhances border definition
- Available in all imaging modes including color flow and Doppler
- Five different levels available, dependent on transducer and clinical application
- Automatic selection of the number of steering angles based on the user-selected resolution/frame rate (Res/Speed) condition
- Up to nine lines of sight automatically adjusted via DRS control



- Operates in conjunction with Tissue Harmonic Imaging, volume modes, panoramic imaging, contrast modes and duplex Doppler
- Operates in conjunction with xRes adaptive image processing
- Available with WideSCAN format during 2D imaging for extended field-of-view operation

Live volume imaging (GI/OB/GYN)

- Single sweep 3D, 4D, STIC volume acquisitions
- 3D preview ROI size and position
- 3D preview ROI curve adjust
- Sector width
- Angle
- Res/speed control
- Grayscale imaging controls
- 2D optimization settings
- 2D/color optimization settings
- 2D/power optimization settings
- Tissue Harmonic Imaging
- Rotate X, Y, Z
- Slice
- ROI size and position
- ROI curve adjust
- Pointer trim adjust
- Pointer xHair move
- Edit/accept
- Hide volume
- Up/down invert
- QuickFlip
- 3D rotate: 0°, 90°, 180°, 270°
- 3D view control: up, down, left, right, front, back
- Reset orientation
- Magnify
- 3D vision control
- Light position controls (X, Y and depth with TrueVue, GlassVue and TouchVue)
- Preset light position controls
- Dynamic volume colorization
- Chroma colorization
- Layout
- Reference
- xRes technology
- Zoom
- Show/hide echo or color
- Reset controls (including light position)
- Pan
- Sculpt
- Threshold
- FlexVue visualization tool
 - Orthogonal view
- Brightness
- Smoothing
- Lighting
- Transparency

- xHair display
- Save volume in native or native loop
- Acquisition sweep save
- MPR sweep save
- Generic distance and area measurements available on rendered volumes
- Distance and area measurements on MPRs
- QLAB plugins, including GI 3DQ and FHN

Tissue Aberration Correction (TAC)

- Corrects for speed of sound disturbances due to excessive adipose layer on obese patients
- Available on L12-5 50 mm, eL18-4 and L18-5 transducers with select TSP settings

iSCAN one-touch intelligent image optimization

- One-touch image optimization
 - In 2D mode, one-button automatic adjustment of system gain and TGC to achieve balanced brightness of tissues
- Available in contrast imaging for selected transducers and applications
 - Independent settings based upon whether the contrast timer is active
- In Doppler mode, one-button automatic adjustment of:
 - Doppler PRF based on detected velocity
 - Doppler baseline based on detected flow direction
- Available on all imaging transducers
- Operates in conjunction with SonoCT and xRes imaging

AutoSCAN continuous intelligent image optimization

- AutoSCAN continuous, real-time adjustment of system gain and TGC to achieve balanced brightness of tissues
 - When activated, applies gain balancing to all grayscale image data including 2D, 3D and M-mode grayscale data
 - Every image frame has individually adjusted image brightness
 - Available from 2D touchscreen controls
- Adaptive gain compensation (AGC) dynamically adjusts (every pixel on every scan line) low level 2D echoes to reduce gain artifacts (shadows/through transmission) and enhance image uniformity with 2D and 3D imaging

iOPTIMIZE one-button intelligent performance optimization

- Multiple technologies for one-button approach to automatically and immediately adjust system performance for different patient sizes, flow states, and clinical requirements.
- Tissue Specific Presets – adjusts over 7,500 parameters during transducer and application selection
- Patient optimization – adjusts 2D performance to immediately adapt to different patient sizes
- Flow optimization – adjusts broadband flow performance to immediately adapt to different flow states
- Dynamic resolution system (DRS) – one control adjusts nearly 40 parameters simultaneously for user preference of spatial resolution or temporal resolution during clinical procedures

- One control optimizes functions such as:
 - Line density
 - Persistence
 - Pulse inversion harmonics
 - Synthetic aperture
 - Number of lines of sight (SonoCT)
 - RF interpolation
 - Parallel beamforming

3.2 Control panel

- Easy-to-learn graphical user interface with mix of touchscreen, innovative trackpad, digital TGC controls and functionally dedicated hard controls
- Primary imaging manipulation controls available on the state-of-the-art trackpad
- Trackpad with three “programmable” trackpad keys
- Other keys associated with trackpad include:
 - iSCAN
 - Acquire
 - Freeze
 - Measure
 - Erase
 - Label
 - Pointer
- Major mode encoders and independent gain controls for 2D, 3D, Color, PW, CW
- BodyMarker encoder for easy display of body markers and transducer orientation graphic
- M-mode, CPA and TDI controls available via the encoders integrated with the touchscreen display
- Completely sealed digital TGC LED controls
 - Eight individual depth controls allow easy adjustment of TGC curve
 - User-selectable TGC lock control avoids inadvertent changes to the TGC curve
 - One button TGC reset to easily return to the default TGC positions
- Tri-state control panel lighting (active, available and unavailable)
- Ambient lighting control for exceptional image viewing in both light and dark environments

3.3 Touchscreen

- Full-color 10" capacitive touchscreen, complete with swipe technology, enables easy navigation of controls and system interaction
- Widescreen touchscreen for dynamic presentation of controls via flyout menu selections reduces button presses
- Workflow-related controls (Patient, Review, Report, End Exam, Help) always present on touchscreen
- Tabbed layout and swipe capability for quick access to secondary or tertiary controls
- Direct selection of any attached transducer with automatic or manual selection of Tissue Specific Presets
- Touchscreen control adjustment of LGC and TGC curve with simultaneous display of image on touchscreen to enhance ergonomics and reduce user steps
- Touchscreen alphanumeric keyboard for text entry
- TouchVue manipulation and icon-driven 3D workflow on touchscreen simplify 3D data navigation



4. Workflow



The Compact 5000 series features the innovative Philips technologies and portfolio-driven workflow normally available on our larger, cart-based systems.

4.1 Ergonomics

- Advanced control panel design with fewer clustered controls and easily accessed mode keys to reduce reach
- Tri-state lighting that provides immediate feedback of active, available and unavailable controls
- User-adjustable tilting touchscreen from flat to 60° vertical to reduce glare from overhead lights in brightly illuminated environments
- Widescreen touchscreen allows more controls to be available at a time and are grouped for quick recognition
- Highly mobile compact cart that provides great mobility during portable exams and promotes easy positioning in confined space environments

4.2 Display annotation

- On-screen annotation of all pertinent imaging parameters for complete documentation, including transducer type and frequency, active clinical options and optimized presets, display depth, TGC curve, grayscale, color map, frame rate, compression map value, color gain, color image mode, hospital name and patient demographic data
- User-selectable display of patient birth date, patient gender, institution name, system name and user
- Fixed position title area for consistent annotation
- Patient name, ID, birth date, gender and system date that can be turned off (hidden) for generating still images for publication
- Additional patient information can be displayed on demand
- Sector steering icon for endocavitary transducers
- Scan plane orientation marker

- User-selectable depth scale display
- Real-time display of mechanical index (MI)
- Real-time display of thermal index (TIb, TIc, TIs)
- Multiple trackpad-driven annotation arrows
- Pre-defined annotations and body markers (application-specific and user-selectable), with two body markers supported in dual imaging format
- Annotations editable and movable in Review
- Configurable label control for quick access to labels and body markers
- Doppler baseline invert in live and frozen imaging
- Compression changes available in live or frozen 2D image
- TGC curve (On/Auto/Off display)
- TGC values (On/Off display)
- Tool Tips provides a brief description of the abbreviated on-screen image parameters
- Trackpad icon displaying functions assigned to trackpad buttons
- Informative trackpad arbitration prompts
- Thumbnail display of images printed/stored
- On-screen selection and display of calculations
- On-screen selection and editing of protocols
- Calculations results and analysis labels
- Graphical tabs that allow navigation to other analysis features
- Network and connectivity icons to allow immediate feedback about network and printer conditions
- Icons to display status of and allow access to the following functions: Print Job status, media read/write status, system battery level, compact cart battery level, wireless connectivity, remote service, HIPAA status indicator icon, iSCAN status, acquisition status and physio status
- Cineloop frame number display
- Cineloop bar with trim markers
- Prompt region for display of informational text and icons
- Protocol procedure list with status

4.3 SmartExams

- On-screen selection and editing of protocols
- Exam guide with on-screen display
- Required views based on exam type
- SmartExam customization
 - Creates a protocol as the user performs an exam
 - Saves all annotation, body markers and labeled measurements defined in each view
 - Records modes used to capture each view
 - Captures the acquisition method (print, capture, 3D data set) in each individual view
 - Provides user ability to pause and resume recording process if needed
 - Allows user to edit views before finalizing new protocol
- Fully customizable protocol capability for any clinical application supported on the system with flexibility to conduct the examination protocol in any sequence
- Preset protocols including but not limited to abdominal, vascular, cardiac and OB/GYN exams based on industry and accreditation guidelines

- Automatic launching of annotation and body marker icon on required views
- Ability to automatically launch modes (2D, 3D, color modes, Doppler, dual, color compare) defined in a SmartExam
- Ability to pause and resume SmartExam function at any time
- Flexibility for automatic or manual advance of views
- Quick access tool bar for protocol navigation
- System analysis capabilities supported in all defined protocols

4.4 Stress echo

- Acquisition of echocardiography single frame or loops of the left ventricle in any imaging mode including 2D, color and spectral Doppler
- Gain Save that adjusts automatically to different views and automatically saves your preferred control settings, such as gain, depth, ROI, position and many other parameters
 - For each view while acquiring resting images
 - At immediate post-exercise, automatic retrieval of saved settings for each view
 - Different gain profiles for parasternal LAX and SAX views, AP4 and AP2 views allowed
- Length of acquired images that is user-adjustable between 1 and 180 seconds
- Ability to acquire routine cardiac images in timed and R-R interval clip (varies with selected compression ratio and available system memory)
- For timed acquisition, the ability to start acquisition on the R-wave if the ECG is active and an R-wave is present
- Your preferred control settings automatically saved – such as MI (mechanical index), gain and depth for each view while acquiring resting images
- Live Compare
- Ability to defer selection by stage
- Default stress protocols
- Factory-provided non-editable default protocols
 - Two-stage exercise stress
 - Four-stage pharmacological stress
 - Three-stage exercise stress (bicycle)
 - Four-stage quantitative: wall motion and contrast
- Default protocols that may be used as the basis for user-defined versions
 - Support between 1 and 10 stages
 - Support user-defined stage names
 - Support between 1 and 40 views per stage
 - Support user-defined view names
 - Prompt for a particular stage and view
 - Assign stage and view names
 - Set clip length for each image or group of images
 - Set the number of cycles/beats for each image
 - Define prospective, retrospective, or multi-cycle/full disclosure acquisition
 - Define the capture format of each image or group of images
 - Define the default replay mode for each protocol
 - Set mode acquisition for each view
 - Support for up to five modes
 - Save user-defined protocols within a preset

- Save user-defined protocols to removable media for import onto separate systems at the same software level
- Modify protocols during use
- Add stages at any point after the current stage
- Pre and post data curves
- Pre and post bull's-eye maps
- Pre and post strain comparisons

4.5 Volume imaging solutions

- Customizable to your workflow
- Fast, one-button press volume acquisition and on-cart review
- Advanced volume and MPR visualization with QLAB GI 3DQ
 - iSlice and thick slice on cart
 - Capability to export freehand, electronic and hybrid acquired 3D grayscale data for visualization on most PACS in a stacked “fly-through” manner (such as CT/MR)
 - Off-cart evaluation of volume data on a multimodality clinical workstation
 - Powerful 3D manipulation tools including volume rendering, MPR, MIP, slab viewing (thick slice), 3D orientation graphics
- Advanced 3D visualization with QLAB GI 3DQ including ability to handle 3D color flow
 - Orientation labels feature for spatial orientation of 3D data sets
 - Adult orientation labels for non-fetal applications
 - Fetal orientation labels for fetal applications
 - MPR export capability
 - Ability to export A, B and C planes as a multiframe loop for review on a DICOM device
 - Available on all transducers but not supported for any STIC files

4.6 QuickSAVE feature

- The system provides the ability to quickly save preferred system settings as individual exam types
- Over 40 QuickSAVE exams can be created per transducer
- Saved parameters include virtually all imaging parameters as well as color box size
- QuickSAVE exams can be copied to USB/DVD and transferred to other systems of like configuration
- Factory default exam types can be hidden, allowing only display of the QuickSAVE exam types

4.7 Image presentation

- Up/down
- Left/right
- Multiple duplex image formats (1/3-2/3, 1/2-1/2, 2/3-1/3, 50/50 and full screen)
- MaxVue image format
 - Allows use of entire monitor viewing area for displaying image with a push of a button
 - Uses a high-definition resolution and an aspect ratio of 16:9
- Depth from 1 cm to 30 cm (transducer-dependent)

4.8 Cineloop review

- Acquisition, storage in local memory and display in real-time and duplex modes of up to 2,200 frames of 2D and color images; up to 64 seconds of Doppler data and M-mode for retrospective review and image selection or up to 48 seconds CW for retrospective review and image selection
- Prospective or retrospective loop acquire “accept” prior to store or clip store
- Trackpad control of image selection
- Variable playback speed
- Trim capability of 2D data
- Available in all imaging modes plus:
 - Panoramic imaging
 - 3D imaging
 - Independent control of 2D image or spectral data in duplex mode
 - Simultaneous control of 2D and spectral data in simultaneous mode
- On-screen display of current 2D frame number
- Many controls available in cineloop review for post-processing, such as 2D gain, dynamic range/compress, xRes, magnify zoom

4.9 Exam management features

- Internal storage
- Data export
- Temporary ID feature
- One-click start of exam from patient data entry screen with system-provided information
- Storage of images that were created without a patient name with a temporary identification
- Patient identification via bar code reader

4.10 Connectivity

Standard connectivity features

- Digital image acquisition and on-board patient exam storage
 - Direct digital storage of B/W and color loops to internal hard disk drives
 - Combined 512 GB storage capacity
 - Storage capacity of approximately 350 patient exams (assuming 40 images, 6 seconds of clips/reports per exam)
 - Fully integrated user interface
 - User-configurable “auto delete” capability
 - On-screen recall, measurement and text editing
 - Exam directory
 - Append exam
 - To existing study
 - To new study using existing patient information
- Data types
 - 2D, M-mode, Doppler spectral frame acquisition
 - 2D clip acquisition up to 2,200 frames per clip
 - Cartesian volume acquisition: 3D, 4D, STIC
 - 3D clips: volume render views and MPR views
 - Q-Apps frames and clips

- Printing
 - Local print to on-board or off-board video printers
 - Printing of images in configurable N-up format to local plain paper printers
 - Page report print
 - DICOM grayscale or color print
- Media storage and retrieval
 - Export DICOM Image and structured report export to removable media
 - Export PC format image to removable media
 - Export PDF report to removable media
 - Supported media
 - USB storage (flash memory or hard drives)
 - Export PC format images and loops to network share
 - Export PDF report to network share
 - DICOM image import
 - Ultrasound images
 - Multimodality images (CT/MRI/X-ray/Mammography/PET)
 - OB trending data
 - Export OB trending information via USB storage device
 - Import OB trending information via USB storage device
 - Export and import of trending data compatible with Affiniti
- RS-232 serial storage
 - Export of report data to off-line analysis computer programs
- Basic networking connectivity
 - Wired gigabit Ethernet
 - Wireless networking 802.11n
 - WPA2 Personal security
 - WPA2 Enterprise security
 - Network addressing
 - IPV4 addressing: static or DHCP for system address, static or hostnames (DNS lookup) for server addresses
 - IPV6 addressing: link local, router discovery or DHCP for system address; host names for server addresses

NetLink connectivity option

- Supported DICOM services
 - Image storage
 - Structured Report (SR) storage includes OB/GYN, vascular, adult echo, pediatric echo, fetal echo, congenital cardiology
 - Modality Worklist with automatic patient demographic entry
 - Modality Performed Procedure Step (MPPS)
 - Storage commitment push model
 - Query/retrieve of ultrasound images
- Image and structured report export to network storage servers
 - Send images after each Print/Acquire
 - Send images at End of Exam (batch send)
 - Send images and report on-demand during exam
 - Send images or exams manually
 - Send to up to five storage SCPs concurrently (at End Exam or after each Print/Acquire)
 - Independently configurable destinations for each acquisition control (e.g., Acquire1, Acquire2, Save 3D, etc.)
- DICOM compression options
 - Uncompressed (Explicit VR Little Endian, Implicit VR Little Endian)
 - JPEG lossy compression (loops) with configurable quality factor 60-100
 - RLE lossless compression
 - JPEG lossless compression (frames)
- Other DICOM export options
 - Monochrome or true color
 - Configurable image size/loop export 640 x 480 or 800 x 600 or 1,024 x 768
 - Secure DICOM compatibility
 - Grayscale mapping choices
 - DICOM Grayscale Standard Display Function (GSDF)
 - 25 additional grayscale curves, user-selectable
- Export optimization tool to aid user in evaluating PACS display monitor calibration and in selecting which grayscale curve to use for exported images
- Native data attached to DICOM ultrasound images (lossless compressed)
 - 2D native data types: tissue, flow, tissue Doppler, spectral Doppler, M-mode and elastography
 - 3D volume data including crop, resize, gain, compression, colorize, color suppress, B/W suppress, xRes and 3D quantification
- Ultrasound region calibration (standard for ultrasound images)
- Pixel spacing attribute for measurement calibration (optional)
- DICOM query/retrieve of other modality images (CT/MRI/X-ray/mammography/PET)
- De-identification feature
- Send images to PACS and media without identifying information burned into the image

- Images exported to media may optionally have patient information removed from DICOM attributes or PC format names
- All pages sent to DICOM printer have patient identification overlay – not configurable
- All pages sent to local printers are configurable to include or exclude patient identification overlay
- DICOM mapping for user-defined measurements, calculations and OB authors
- Support of the export of user-defined measurements, calculations and OB authors with standard DICOM structure reporting for the following report types:
 - Adult echo
 - Vascular
 - Pediatric echo
 - TCD
 - Fetal echo
 - Abdominal
 - Small parts
 - OB/GYN

Report

- Report templates per clinical exam
- ACEP Report templates available on 5500P and 5300P configurations
- User-configurable report
- Off-cart report configuration tool available
- On-cart report configuration

Collaboration Live

- Provides ultrasound system users with the ability to communicate and collaborate with colleagues or with Philips technical and clinical support personnel in a non-diagnostic way, directly from the ultrasound system
 - Video two-way streaming supported – optional video camera not provided
 - Audio two-way supported – optional headset not provided
 - Text two-way instant message
 - Remote visual asset display JPEG, PNG, MP4, OBJ 17
 - Screen-sharing Web RTC
 - Webcam universal USB driver
 - Headset universal USB driver

Core security features

- Internet firewall protection
- OS hardening
- Media export security



Government security option

- Option fully removes the capability for creating or configuring remote service functionality.

Safeguard security option

- Configurable option for enabling state-of-the-art computer whitelisting protection against virus or malware for maximum system protection
- Malware protection
- In-memory protection

Security Plus feature

- Functionality that provides up-to-date security features for system and patient data protection
- Configurable access levels
- Hard drive encryption
- Local and remote (LDAP) user management
- Custom-configurable password policies
- Custom-configurable login
- Audit log export

5. Transducers



The transducers used for the Compact 5000 series are shared with other products which are part of the Philips portfolio.

5.1 Transducer selection

- The system provides electronic switching between the single connector for imaging transducers (2D/3D) and the connector for the dedicated Pedoff Doppler transducers
- Automatic parameter optimization of each transducer for exam type through Tissue Specific Presets (TSP) software

Multiport adapter

- The optional multiport adapter provides electronic switching for up to three imaging transducers
- If two transducers are connected that both support the same TSP, the system supports instantaneous switching between transducers while maintaining current depth parameter if possible

Compact transducers

- Ergonomic designs with lightweight super-flexible cables
- Fully contained pinless style direct electrical contact points
- Advanced low-loss lens technology for penetration with less artifacts
- Breakthrough broadband frequency response
- Support for very high frequencies from skin line (with zoom function) to 30 cm
- Advanced micro-electronics in linear, curved, tightly curved, sector and hybrid volume array configurations
- High-precision automated volume transducers
- User-customizable imaging presets for each transducer

PureWave crystal technology

- Available on the eL18-4, X7-2t, X8-2t, S5-1, C5-1, C9-2 and C10-3v transducers
- Breakthrough crystal technology that allows greater acoustic efficiency and bandwidth

Curved array

Curved Transducer 5-1 MHz with PureWave Technology

- 5-1 MHz extended operating frequency range
- End-fire sector, 45 mm radius of curvature, 111° field of view (wide scan enabled)
- High density curved array with 160 elements
- Steerable pulsed wave, High-PRF and color Doppler, Color Power Angio (CPA), directional CPA, SonoCT, variable xRes and multivariate harmonic imaging
- General purpose abdominal (adult and pediatric, including vascular), bowel, obstetrical, gynecological and prostate
- Contrast mode
- Supports biopsy guide capabilities
- Precision biopsy support compatible with CIVCO¹ Verza Guidance System
- Available on 5500G, 5500W, 5500P, 5500CV

Curved Transducer 6-2 MHz

- 6-2 MHz extended operating frequency range
- End-fire sector, 50 mm radius of curvature, 72° field of view (wide scan enabled)
- High density curved array with 128 elements
- Steerable pulsed wave, High-PRF and color Doppler, Color Power Angio (CPA), directional CPA, SonoCT, variable xRes and multivariate harmonic imaging
- General purpose abdominal (adult and pediatric, including vascular), bowel, obstetrical, gynecological and prostate
- Supports biopsy guide capabilities
- Available on 5500G, 5500W, 5500P, 5500CV, 5300G, 5300W, 5300P

Curved Transducer 8-5 MHz

- 8-5 MHz extended operating frequency range
- End-fire sector, 14 mm radius of curvature, 122° field of view (wide scan enabled)
- Steerable pulsed wave and color Doppler, Color Power Angio (CPA), directional CPA, SonoCT and xRes imaging
- Vascular, vascular access, pediatric abdominal, neonatal cephalic imaging and nerve
- Supports biopsy guide capabilities
- Available on 5500G, 5500P, 5500CV, 5300G, 5300P

Curved Transducer 9-2 MHz with PureWave Technology

- 9-2 MHz extended operating frequency range
- End-fire sector, 45 mm radius of curvature, 102° field of view (wide scan enabled)
- Steerable pulsed wave and color Doppler, Color Power Angio (CPA), directional CPA, SonoCT, variable xRes and harmonic imaging
- General purpose obstetrical and gynecological, abdominal (adult and pediatric), abdominal vascular, OB fetal heart
- Supports biopsy guide capabilities (four angle)
- Precision biopsy support compatible with CIVCO¹ Verza Guidance System
- Available on 5500G, 5500W, 5500CV

Curved Transducer 9-4 MHz Endovaginal

- 9-4 MHz extended operating frequency range
- End-fire sector, 10 mm radius of curvature, 181° field of view (wide scan enabled)
- Steerable pulsed wave and color Doppler, Color Power Angio (CPA), directional CPA, SonoCT, xRes and harmonic imaging
- OB, Gyn, fetal echo and urology
- Gyn strain elastography
- Supports biopsy guide capabilities
- Available on 5500G, 5500W, 5500P, 5500CV, 5300G, 5300W, 5300P

Curved Transducer 10-3 MHz Endovaginal with PureWave Technology

- 10-3 MHz extended operating frequency range
- End-fire sector, 11.5 mm radius of curvature, 163° field of view (wide scan enabled)
- Steerable pulsed wave and color Doppler, Color Power Angio (CPA), directional CPA, SonoCT, xRes and harmonic imaging
- OB, Gyn, fetal echo and urology
- Gyn strain elastography
- Supports biopsy guide capabilities
- Available on 5500G, 5500W, 5500P

Mechanical Volume Transducer 6-2 MHz

- 6-2 MHz extended operating frequency range
- End-fire sector, 55 mm radius of curvature, 89° field of view (wide scan enabled)
- Steerable pulsed wave, High-PRF and color Doppler; Color Power Angio (CPA), directional CPA, SonoCT, variable xRes, harmonic imaging and STIC
- Support of high resolution 2D imaging
- Support of high resolution, quantitative, single sweep 3D volume acquisition
- Comprehensive obstetrical volume applications
- Supports biopsy guide capabilities
- Available on 5500G, 5500W, 5300G, 5300W

Mechanical Volume Transducer 9-3 MHz Endovaginal

- 9-3 MHz extended operating frequency range
- 164° field of view (wide scan enabled)
- Steerable pulsed wave and color Doppler, Color Power Angio, directional CPA, SonoCT, xRes and harmonic imaging
- Support of high resolution 2D imaging
- Support of high resolution, quantitative, single sweep 3D volume acquisitions (hybrid and freehand)
- OB, Gyn, fetal echo and urology
- Supports biopsy guide capabilities
- Available on 5500G, 5500W, 5300G, 5300W

¹CIVCO Verza Guidance System is a trademark of CIVCO Medical Solutions.

Linear array

Linear Transducer 12-3 MHz

- 12-3 MHz extended operating frequency range with ergonomic handle
- Fine angle steering of color and pulsed wave Doppler
- 2D; steerable pulsed wave and color Doppler, Color Power Angio (CPA), SonoCT, variable xRes, harmonic imaging, M-mode, MicroFlow Imaging and directional CPA Vascular imaging and superficial imaging applications
- Cerebrovascular (carotid, vertebral), peripheral vascular (venous, arterial), internal mammary vessels and musculoskeletal imaging
- Auto Doppler flow optimization
- Available on 5500G, 5500P, 5500CV, 5300G, 5300P

Linear Transducer 12-4 MHz

- 12-4 MHz extended operating frequency range
- Fine pitch, 128 element, high resolution linear array
- Steerable pulsed wave and color Doppler, Color Power Angio (CPA), SonoCT, panoramic, variable xRes and harmonic imaging
- Fine angle steering of color and pulsed wave Doppler
- Vascular (carotid, arterial and venous), intervention, bowel, MSK and small parts and superficial imaging applications
- Cerebrovascular (carotid, vertebral), peripheral vascular (venous, arterial), internal mammary vessels and musculoskeletal imaging
- Auto Doppler flow optimization
- Supports biopsy guide capabilities
- Available on 5500G, 5500W, 5500P, 5500CV, 5300G, 5300W, 5300P

Linear Transducer 12-5 MHz 50mm

- 12-5 MHz extended operating frequency range
- Fine pitch, 256 element, high resolution linear array
- Steerable pulsed wave and color Doppler, Color Power Angio (CPA), SonoCT, variable xRes and harmonic imaging
- High resolution superficial applications including small parts, breast, vascular, musculoskeletal, pediatric general imaging, nerve, OB and bowel imaging
- Tissue aberration correction selection for MSK and advanced breast imaging TSP
- Auto Doppler flow optimization
- Elastography – strain-based
- Panoramic imaging
- Pediatric application
- Supports biopsy guide capabilities
- Precision biopsy support compatible with CIVCO¹ Verza Guidance System
- Available on 5500G, 5500W, 5500P, 5300G, 5300W, 5300P

Linear Transducer 15-7 MHz intraoperative

- 15-7 MHz extended operating frequency range
- Fine pitch, 128 element, high resolution linear array
- Steerable pulsed wave and color Doppler, Color Power Angio (CPA), SonoCT, panoramic and xRes imaging
- Unique lens design allowing high resolution imaging at transducer surface
- High resolution intraoperative vascular, vascular, nerve, ocular, superficial MSK and small parts applications
- Auto Doppler flow optimization
- Fine angle steering of Color and pulsed wave Doppler
- Available on 5500G, 5500P, 5500CV, 5300G, 5300P

Linear Transducer 18-5 MHz

- 18-5 MHz extended operating frequency range
- Ultra-fine pitch, 288 element, high resolution linear array
- Steerable pulsed wave and color Doppler, Color Power Angio (CPA), SonoCT, panoramic, variable xRes and harmonic imaging
- High resolution superficial applications including small parts, breast, pediatric GI, vascular, nerve and musculoskeletal imaging
- Tissue aberration correction selection for MSK and advanced breast imaging TSP
- Auto Doppler flow optimization
- Supports biopsy guide capabilities
- Precision biopsy support compatible with CIVCO¹ Verza Guidance System
- Available on 5500G, 5500P, 5500CV, 5300G, 5300P

Linear Transducer 18-4 MHz with PureWave and Elevation Focus technologies

- Ultra-broadband PureWave array generates frequencies from 2-22 MHz
- Multi-row array with fine elevation focusing
- Optimized diagnostic operating bandwidth: 18-4 MHz
- Fine pitch, 1920 active elements
- Steerable pulsed wave and color Doppler, Color Power Angio (CPA), SonoCT, variable xRes and harmonic imaging
- High resolution superficial applications including small parts, breast, vascular, musculoskeletal, bowel, pediatric abdomen. OB imaging, fetal echo, nerve and lung
- Tissue aberration correction selection for breast and vascular TSPs
- MicroFlow Imaging support
- Strain elastography support
- Needle visualization support
- Auto Doppler flow optimization
- Contrast mode
- Panoramic Imaging
- High frame rates available
- Supports biopsy guide capabilities
- Available on 5500G, 5500W, 5500P, 5500CV

Sector array

Sector Transducer 4-2 MHz

- 4-2 MHz extended operating frequency range
- Phased array, 80 elements
- 2D; CW, steerable pulsed wave, High-PRF and color Doppler; tissue Doppler, variable xRes, AutoSCAN/iSCAN and harmonic imaging
- Adult echo, abdominal, pediatric echo, FAST, lung and TCD applications
- Contrast mode
- Available on 5500G, 5500P, 5500CV, 5300G, 5300P

Sector Transducer 5-1 MHz with PureWave Technology

- 5-1 MHz extended operating frequency range
- Phased array, 80 elements
- 2D; CW, steerable pulsed wave, High-PRF and color Doppler; tissue Doppler, variable xRes, AutoSCAN/iSCAN and harmonic imaging
- Adult echo, abdominal, pediatric echo, FAST, lung and TCD applications
- LVO and low MI contrast modes
- Available on 5500G, 5500P, 5500CV

Sector Transducer 8-3 MHz

- Phased array, 96 elements
- 2D, steerable PW Doppler, CW Doppler, High-PRF Doppler, color Doppler, tissue Doppler, advanced variable xRes and harmonic imaging
- Adult, fetal and pediatric echo cardiac applications; pediatric abdomen; neonatal head application
- Available on 5500G, 5500P, 5500CV, 5300G, 5300P

xMatrix array

TEE Transducer 7-2 MHz with PureWave and xMatrix Array technologies

- 7-2 MHz extended operating frequency range
- Transesophageal xMatrix array transducer with 2,500 elements
- 2D, advanced variable xRes, harmonic imaging, M-mode, color M-mode, color flow, PW Doppler, CW Doppler
- Physical dimensions:
 - Tip: 1.7 x 3.8 cm (0.7 x 1.5 in) WxL
 - Shaft: 1 cm (0.4 in) diameter, 1 m (39.4 in) L
- Electronically rotatable array from 0° to 180°
- Electrocautery suppression
- Adult TEE applications: patients > 30 kg (66 lb)
- Available on 5500G, 5500P, 5500CV, 5300G, 5300P

TEE Transducer 8-2 MHz with PureWave and xMatrix Array technologies

- 8-2 MHz extended operating frequency range
- Transesophageal xMatrix array transducer with 2,500 elements
- 2D, advanced variable xRes, harmonic imaging, M-mode, color M-mode, color flow, PW Doppler, CW Doppler
- Physical dimensions:
 - Tip: 1.7 x 3.8 cm (0.7 x 1.5 in) WxL
 - Shaft: 1 cm (0.4 in) diameter, 1 m (39.4 in) L
- Electronically rotatable array from 0 to 180°
- Electrocautery suppression
- User-configurable handle, center button providing one of three functions: Freeze, Acquire or iSCAN
- Adult TEE applications: patients > 30 kg (66 lb)
- Available on 5500G, 5500P, 5500CV, 5300G, 5300P

Non-imaging

Non-imaging Continuous Wave Transducer 2 MHz

- Dedicated 2 MHz continuous wave Doppler
- Adult cardiology applications
- Non-imaging continuous wave transducer
- Available on 5500G, 5500P, 5500CV, 5300G, 5300P

Non-imaging Continuous Wave Transducer 5 MHz

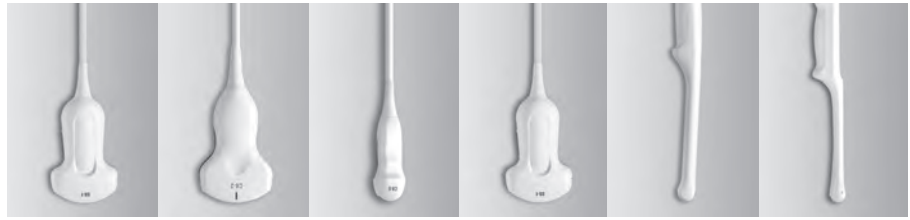
- Deep venous and arterial applications
- Available on 5500G, 5500P, 5500CV, 5300G, 5300P

Non-imaging Pulsed Wave Transducer 2 MHz Transcranial

- Dedicated 2 MHz pulsed wave Doppler
- Transcranial Doppler applications
- Available on 5500G, 5500P, 5500CV, 5300G, 5300P

5.2 Compact 5000 series

Transducers and features



Transducer	C5-1	C6-2	C8-5	C9-2	C9-4v	C10-3v
Type of array	Curved	Curved	Tightly curved	Curved	Tightly curved	Tightly curved
Number of elements	160	128	128	192	128	128
Scanplane aperture	55.5 mm	63.7 mm	22.4 mm	53.76 mm	26.2 mm	26.1 mm
Field of view	111°	72°	122°	102°	181°	163°
WideSCAN available						
Volume field of view						
Broadband frequency range	5-1 MHz	6-2 MHz	8-5 MHz	9-2 MHz	9-4 MHz	10-3 MHz
PureWave	•			•		•
Applications						
Abdominal	•	•		•		
Obstetrics	•	•		•	•	•
Fetal	•	•		•	•	•
Gynecology	•	•		•	•	•
Cardiology						
Pediatric cardiology						
Vascular	•	•	•	•		
Pediatric GI	•	•	•	•		
Small parts						
Musculoskeletal				•		
TCD						
Breast						
Urology	•	•			•	•
POC	•	•	•			



Transducer	V6-2	3D9-3v	L12-3ERGO	L12-4	L12-5 50	L15-7io
Type of array	Curved	Tightly curved	Linear	Linear	Linear	Linear
Number of elements	192	128	160	128	256	128
Scanplane aperture	63.4 mm	26.1 mm	38 mm	34 mm	50 mm	23 mm
Field of view						
WideSCAN available			•	•	•	•
Volume field of view	100x85	156x85				
Broadband frequency range	6-2 MHz	9-3 MHz	12-3 MHz	12-4 MHz	12-5 MHz	15-7 MHz
PureWave						
Applications						
Abdominal				•	•	
Obstetrics	•	•	•		•	
Fetal	•	•				
Gynecology		•				
Cardiology						
Pediatric cardiology						
Vascular			•	•	•	•
Pediatric GI			•	•	•	
Small parts			•	•	•	•
Musculoskeletal			•	•	•	•
TCD						
Breast			•	•	•	
Urology		•				
POC			•	•	•	•
Ocular			•	•		•



Transducer	L18-5	eL18-4	S4-2	S5-1	S8-3
Type of array	Linear	Linear	Sector	Sector	Sector
Number of elements	288	1920	80	80	96
Scanplane aperture	38.9 mm	55 mm	20.3 mm	20.3 mm	15.4 mm
Field of view	3.84°*		90°	90°	90°
WideSCAN available		•			
Volume field of view					
Broadband frequency range	18-5 MHz	22-2 MHz	4-2 MHz	5-1 Mhz	8-3 MHz
PureWave		•		•	
Applications					
Abdominal		•	•	•	
Obstetrics		•			
Fetal		•			•
Gynecology					
Cardiology			•	•	•
Pediatric cardiology			•	•	•
Vascular	•	•	•	•	
Pediatric GI	•	•			•
Small parts	•	•			
Musculoskeletal	•	•			
TCD			•	•	
Breast	•	•			
Urology					
POC	•	•			

*non-WideSCAN



Transducer	X7-2t	X8-2t	D2cwc	D5cwc	D2tcd
Type of array	xMatrix	xMatrix			
Number of elements	2500	2500			
Scanplane aperture	Proprietary	Proprietary			
Field of view	90°	90°			
WideSCAN available					
Volume field of view					
Broadband frequency range	7-2 MHz	8-2 Mhz			
PureWave	•	•			
Applications					
Abdominal					
Obstetrics					
Fetal					
Gynecology					
Cardiology	•	•	•		
Pediatric cardiology					
Vascular				•	
Pediatric GI					
Small parts					
Musculoskeletal					
TCD					•
Breast					
Urology					
POC					

Compact 5000 series transducer configurations

The Compact 5000 series offers seven individual products across the spectrum of clinical segments and are designed to meet your clinical needs.



Transducer	5300G	5500G	5300W	5500W	5300P	5500P	5500CV
Curved array							
C5-1		•		•		•	•
C6-2	•	•	•	•	•	•	•
C8-5	•	•			•	•	•
C9-2		•		•			•
C9-4v	•	•	•	•	•	•	
C10-3v		•		•		•	
V6-2	•	•	•	•			
3D9-3v	•	•	•	•			
Linear array							
L12-3ERGO	•	•			•	•	•
L12-4	•	•	•	•	•	•	•
L12-5 50	•	•	•	•	•	•	•
L15-7io	•	•			•	•	•
L18-5	•	•			•	•	•
eL18-4		•		•		•	•
Sector array							
S4-2	•	•			•	•	•
S5-1		•				•	•
S8-3	•	•			•	•	•
xMatrix array TEE							
X7-2t	•	•			•	•	•
X8-2t	•	•			•	•	•
Non-imaging							
D2cwc	•	•			•	•	•
D5cwc	•	•			•	•	•
D2tcd	•	•			•	•	•

6. Measurements and analysis

6.1 Measurement tools and general description

- 2D distance
- 2D circumference/area by ellipse, continuous trace, trace by points
- Auto conversion of distance to ellipse
- 2D curved-linear distance
- 2D angle: intersection of two lines
- In 2D, three distance or distance and ellipse tools to calculate volume
- In 2D, hip angle tool and d:D ratio tool
- In 2D, percent area reduction and percent diameter reduction tools
- In 2D, Simpson's tool calculates LV (left ventricle) area and volume
- In 2D, area-length tool calculates LA (left atrium) area and volume
- In 2D, biplane volume calculation
- In 2D, comparison tool available in contrast and elastography applications
- PISA calculation available in cardiac applications
- 3D: ellipse and distance on 2 MPR views
- 3D: stacked contours on one MPR
- M-mode distance (depth, time, slope)
- M-mode heart rate calculation
- Auto conversion of distance to ellipse
- 2D trace by points
- 2D distance (micro calipers)
- 2D Simpson's
- Generic angle
- 3D distance volume calculation
- Distance and ellipse volume
- Diameter percent reduction
- Area percent reduction
- Hip angle
- d:D ratio
- Size compare
- Doppler peak velocity
- Doppler two calipers tool
- Doppler continuous trace
- Doppler trace by points
- Cardiac dP/dt
- Volume flow
- Color aliasing velocity
- Manual data entry
- RA pressure
- 3D stacked ellipses
- 3D auto stacked contours
- Manual Doppler trace
 - Cardiac trace tool generates Vmean, Vmax, MeanPG, MaxPG, VTI
 - General imaging trace tool generates PSV (peak-systolic velocity), EDV (end diastolic velocity), MDV (minimum diastolic velocity), TAPV (time averaged peak velocity), TAMV (time averaged mean velocity), RI (resistive index), PI (pulsatility index), S/D (systole/diastole) ratio and heart rate
- Time/slope measurements in Doppler and M-mode
- High Q automatic Doppler analysis (general imaging only)
 - Automatically calculates PSV, EDV, MDV, TAPV, TAMV, RI, PI, S/D ratio and heart rate
 - Functions in live or frozen imaging
- RA (right atrium systolic) pressure tool



6.2 Measurement tools and quantification

General Imaging 3D Quantification (GI 3DQ) application

- 3D/4D viewer for OB/GYN and general imaging
- Review of 3D/4D, color 3D and STIC files
- Multiplanar reconstruction (MPR)
- iSlice and curved iSlice precision volume slicing capability
 - Display of 2D/color slices from static or live volume
 - User-selectable slice display: 4, 9, 16 or 25
 - User-selectable interval spacing
 - User-selectable slicing depth
 - User-selectable slicing source (x, y or z)
- Free rotation of any source
- Full cineloop review control
- 2D grayscale display adjustments
- Color display adjustments
- Zoom control
- Cine/pan slice control through volume
- User-selectable image storage
- Quick launch to measurements
 - Auto ruler display
- Compatible with freehand and automated volumes
- 2D and 3D measurement tool including distance, area, angle, auto volume, stacked and auto contour and ellipsoid measurements
 - Invert mode
 - Vascularization index, flow index and vascularization flow index results on 3D color mode data sets
 - Pixel intensity index
- Contrast timer marker on Compact 5000 series data sets saved with contrast timer
- Orientation labels display on Compact 5000 series data sets saved with orientation label marker
- xRes speckle noise reduction of MPR and volume displays
- Assisted auto-trace volume measurement tools for stacked contours and ellipse methods
- Edge detection selection for hypoechoic or high contrast targets
- Auto volume tool

Intima Media Thickness (IMT) Quantification application

- Automated assessment of the IMT on user-selected frames
- For carotid and other superficial arteries

Region of Interest (ROI) Quantification application

- Pixel intensity index – pixel intensity analysis, data types: echo, velocity
- Pixel intensity analysis, data types: echo, velocity (color) or power (angio)
- Up to 10 user-defined regions
- Thumbnail display of frames for easy trimming
- TDI velocity timing measurement
- Log/linear data display selection
- Smoothed data display option with various curve-fitting techniques
- Vascularization index, flow index and vascularization flow index results on color mode files
- Motion compensation for multiframe objects

Automated Cardiac 2D Quantification (a2DQ) application

- Left ventricle global volume analysis from 2D images
- Quantification of native and non-native images
- Quantification of non-ECG images
- Automated border detection for cardiac chambers and vessel cavities
- Computation of area, LV volumes and advanced parameters for LV systolic and diastolic function including fractional area change (FAC), ejection fraction (EF), peak ejection rate (PER), peak rapid filling rate (PRFR)
- Single-plane volume measurements based on Simpson's Single Plane Method of Disks (MOD)
- Biplane volume measurements based on Simpson's biplane Method of Disks (MOD)
- Automated Tissue Motion Annular Displacement (aTMAD)
- Mitral valve and other valve annular motion tracking over time
- Computation of valve annular displacement curves over time
- Color Kinesis overlay to visualize valve annular plane motion parametrically
- Measurement data exported in Excel or DICOM SR formats
- Simplified workflow with SmartExam

MicroVascular Imaging (MVI) application

- Integration and processing of images in contrast specific imaging mode providing detection and display of very low velocity flows of very low signal amplitude
- Motion compensation for multiframe objects

Cardiac AutoStrain LV application

- Provides automated 2D longitudinal strain quantification
- Objective assessment of left ventricle global function and regional wall motion deformation and timing using TOMTEC 2D speckle tracking technology
- One-button-push global longitudinal strain
- Automated view recognition and labeling with manual correction
- Automated contour detection and placement
- Image orientation selection
- Editing contour on ED and ES
- Fast speckle tracking on three apical images at once
- Peak longitudinal strain for each apical view and global average
- Automated R-AVC with manual correction
- 18 segments peak-systolic longitudinal strain bull's-eye display
- 18 segments end-systolic longitudinal strain bull's-eye display
- 18 segments time-to-peak longitudinal strain bull's-eye display
- 18 segments waveform display for three apical views
- 6 segments waveform display for each apical view
- Measurement data exported in Report and DICOM SR

Fetal Heart Navigator application

- Protocol-driven workflow
 - Automates the initial ductal arch view
 - Guides user in obtaining view recommended in ISUOG Fetal Cardiac Screening Guidelines
 - Obtains the fetal heart views: 4-chamber, LVOT and RVOT
- Supports V6-2 STIC data sets containing eight or more frames
- OB presets supported
- Visualization controls allow users to change display settings at any stage in the protocol
 - Chroma Map
 - Gray Map
 - Slice thickness

6.3 High Q automatic Doppler analysis

- Automatic real-time and retrospective tracing
 - Immediate peak velocity
 - Immediate intensity-weighted mean velocity
- Automatic real-time display of (user-selectable up to six)
 - Volume flow
 - Time-averaged peak velocity
 - Time-averaged mean velocity
 - Resistive index
 - Pulsatility index
 - Systolic/diastolic ratio
 - Acceleration/deceleration times
 - Illustrated High Q

6.4 Clinical option analysis packages

- Cardiac analysis
 - Left atrium
 - Right atrium
 - Right ventricle
 - Left ventricle
 - TAVI (transcatheter aortic valve implantation)
 - Valve stenosis
 - Prosthetic aortic valve
 - Prosthetic mitral valve
 - TAPSE (tricuspid annular plane systolic excursion)
 - MAPSE (mitral annular plane systolic excursion)
 - PCWP (pulmonary capillary wedge pressure or pulmonary artery occlusion pressure)
 - Stress echo measurements in various stages
 - MPI (or TEI index)
 - Volume by area/length method
 - M-mode ejection fraction (via Teichholz or cubed method)
 - Novel 3-point adjustable Simpson's template
 - Simpson's biplane and single plane volume and ejection fraction
 - Area, length, volume and ejection fraction
 - LV mass
 - 2D all points
 - M-mode all points
 - Peak velocity
 - Maximum and mean pressure gradients
 - Pressure half time
 - E/A ratio
 - D/E slope
 - Continuity equation
 - Diastolic function
 - Cardiac output
 - Acceleration time
 - Heart rate

- Vascular analysis
 - Right and left carotid artery protocols
 - ICA/CCA ratio
 - Bilateral lower extremity arterial and venous labels
 - Bilateral upper extremity arterial and venous labels
 - Percent diameter and area reduction
 - Vascular graft measurement package
 - User comments
 - High Q automatic Doppler analysis
- OB analysis
 - Fetal echo application
 - Fetal biometry (up to quintuplets)
 - Biophysical profile
 - Amniotic fluid index
 - Early gestation
 - Fetal long bones
 - Fetal cranium
 - Other OB measurements
 - 2D echo
 - Fetal heart M-mode
 - Fetal Doppler
 - Fetal echo
 - aBiometry Assist
- Gynecology/fertility
 - Uterine volume
 - Right and left ovary volumes
 - Right and left follicles (10)
 - Endometrial thickness
 - Cervical length
- Abdominal vascular
 - Labels for all major abdominal arteries and veins
 - Left and right segmentation for kidneys
- General imaging
 - General
 - User-defined labels
- Prostate
 - Prostate gland
- Pediatric
 - General
 - d:D radio
- Small parts
 - General
 - Breast, right and left protocols for up to five lesions per breast
- Testicle
 - Testicle volume
 - EPI head, body, tail
- Urology
 - Prostate, PSA, PSA density



7. Physical specifications



Compact system

Width	411.9 cm (16.2 in)
Height	86.6 cm (3.4 in)
Depth	406.6 cm (16.0 in)
Weight	10.57 kg (23.3 lb) including internal battery
Monitor	15.6 in 1920 x 1080 LCD panel
Power	100-140 V, ~50-60 Hz, 250 VA
AC adapter	Input: 100-240 VAC, 50/60 HZ Output: 24 VDC @ 250 W
Power consumption	310 VA
System battery	14.4 VDC, 98 WH
AUX display port	1920 x 1080 resolution
Connectors	Ethernet and two USB 3.0 connectors

Compact cart

- Cart base – 488.8 mm x 488.8 mm (19.2 in x 19.2 in)
- Vertical adjustment – 820-1001 mm (32.2-39.3 in)
- Four 5-inch locking swivel wheels, rear two wheels include steering lock mechanism
- Integrated keyboard in slide-out drawer
- Probe holders on both sides to accommodate up to four transducers
- Storage bins are provided and include a large bin, a small bin and a rear handle tray
- Integrated Ethernet connector
- Two USB connectors
- Power consumption: 660 VA max, depending on system configuration
- Standard cart
 - Integrated keyboard in slide-out drawer
 - Integrated AC adapter in bottom compartment
 - Input: 100-240 VAC, 50/60 Hz
 - Output: 24 VDC @ 250 W
- Extended cart
 - Integrated keyboard in slide-out drawer
 - Input: 100-240 VAC, 50/60 Hz
 - Output: 24 VDC @ 250 W + 5 V @ 1 W
 - Three batteries to provide additional scanning time
- Deluxe cart
 - Integrated keyboard in slide-out drawer
 - Input: 100-240 VAC, 50/60 Hz
 - Output: 24 VDC @ 250 W + 5 V @ 1 W
 - Three batteries to provide additional scanning time
 - Multiport adapter provides ports for attaching up to three imaging transducers
- Premium cart
 - Integrated keyboard in slide-out drawer
 - Input: 100-240 VAC, 50/60 Hz
 - Output: 24 VDC @ 250 W + 5 V @ 1 W
 - Three batteries to provide additional scanning time
 - Multiport adapter provides ports for attaching up to three imaging transducers
 - Small profile B/W video printer
 - Weight: 48.2 kg (106.3 lb) with cart, system, printer, power supply and multiport adapter

Travel case (optional)*

- Dimensions (L x W x D): 63.2 x 60.2 x 33.3 cm (24.90 x 23.70 x 13.10 in)
- Weight (when empty): 9.1 kg (20.1 lb)
- Includes space for the following: 5000 Compact system, AC adapter, three imaging transducers (one linear, one convex and one sector), power cord, battery

* Sold separately

Physio

- One three-lead ECG input
 - Gain, sweep rate and display position controls
 - Automatic heart rate calculation and display
 - Fault condition display
 - Cineloop locator displayed on one ECG input from an ECG source like stress ECG or ECG monitor

Electrical safety standards

- CAN/CSA 22.2 No. 60601-1, Medical Electrical Equipment: General requirements for basic safety and essential performance
- IEC 60601-1, Medical Electrical Equipment: General requirements for basic safety and essential performance
- IEC 60601-1-2, Collateral Standard, Electromagnetic compatibility – requirements and tests
- IEC 60601-2-37, Particular Requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment
- ANSI/AAMI ES60601-1, Medical Electrical Equipment: General requirements for basic safety and essential performance
- Electromechanical Safety Standards met (EU Only) EN60601-2-37: Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment
- Agency approvals
 - Canadian Standards Association (CSA)
 - CE Mark in accordance with the European Medical Device Regulations issued by British Standards Institute (BSI)



8. Maintenance and services*

Maintenance

- Flexible service agreements to meet varied customer needs and budget
 - Maximize uptime
 - Access Philips award-winning service organization
- System designed for easy replacement of key components by your facility's biomedical engineers
- First responder access to diagnostics and utilities
- Remote log file transfer decreases downtime by allowing rapid diagnosis of problems by call center personnel
- Comprehensive diagnostics
 - Hardware
 - Software
 - Network
 - On-cart transducer testing

Services

- Philips Remote Services* Connectivity is designed with security in mind and allows for many advanced service features
- Philips Remote Services are based on a comprehensive security infrastructure including iSSL technology, encryption and protocols to protect patient information
- Virtual on-site visits for both clinical and technical support, providing fast resolution to issues and questions
- Online support request
 - Simplifies support engagement
 - Provides fast response to clinical questions and technical issues
 - Allows request to be entered by user directly on ultrasound system
- Proactive monitoring
 - Helps prevent unscheduled downtime
 - Monitors key system parameters
- Remote Software Distribution boosts performance over the entire system lifecycle
- Clinical applications support available
- Clinical Education offerings include*
 - Webinars
 - Symposiums
 - On-site
 - Classroom
 - Remote



*Service agreement required for access to Philips Remote Services. Access to the Internet required. Not all remote features available in all countries; contact your Philips representative for details.

Our EcoPassport

As a company committed to doing business sustainably, we are keen to help our customers make responsible choices. We offer solutions that improve people's health and well-being while reducing impact on the environment. Our EcoPassports summarize the environmental benefits our products offer in one or more of our focal areas.

For example, increased energy efficiency, more sustainable packaging, or a circular-ready product design optimized for repair, refurbishing and recycling. In this way, we want to help ensure that each purchase decision is the right one for our customer's needs and the planet.

For more information, visit www.philips.com/sustainability.

Energy

- On mode: 200 W
- Off mode: 2 W
- Ready to scan and standby mode: 90 W
- Energy usage per year: 700 kWh¹
- Energy use reduced by: 17%²

Weight

- Product: 10.57 kg

Circularity

- Refurbishment program available
- Service and spare parts available
- Lifetime can be extended through upgrades

Substances

- RoHS 2 compliant³
- REACH compliant

Packaging

- Total weight: 37.9 kg
- Cardboard and paper: 11.0 kg
- Plastic: 4.6 kg
- Ferro metal: 1.4 kg
- Wood: 20.9 kg
- 100% wood from Sustainable Forestry Initiative (SFI) certified sources
- No use of polyvinylchloride (PVC) and expanded polystyrene (EPS)

¹ Average use scenario

² Compared to its predecessor product, CX50

³ EU Directive 2015/863

Enhancing the capabilities of your existing ultrasound systems, the SmartPath upgrade offers easy access to knowledge-based iterative reconstruction.



Optimize your system's performance both now and in the future with regular and ongoing updates, including functionality improvements and remote technical support.



Enhance your equipment with regular technology upgrades and take advantage of the newest features and capabilities.



Transform your investment at the end of your system's life by transitioning seamlessly to a next-generation solution or refurbished option.