

ACUSON Sequoia Ultrasound Platform

Cadence Contrast Pulse Sequencing (CPS) Technology Option
syngo Auto-Tracking Contrast Quantification (ACQ) Option

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Cadence Contrast Pulse Sequencing Technology* on the ACUSON Sequoia™ Ultrasound Platform

Ultra-premium Performance in Contrast Agent Imaging

- Provides proprietary detection of the nonlinear fundamental and higher order harmonic signals that return from contrast agents
- Optimized for low MI contrast imaging in abdominal, cardiovascular, vascular, small parts, endocavitary and small animal applications
- Cadence™ contrast pulse sequencing (CPS) technology is available with the 17L5 HD, 15L8, 15L8w, 9L4, EV8C4, 6C2, 4C1, 4V1, 4V1c and 3V2c transducers
- Allows the clinician to display the anatomical “tissue” image, the contrast agent “perfusion” image, or both together – in real-time or in cine review
- Supports CPS Capture which allows cine collection of contrast agent imaging information over time and provides detailed images of micro- and macro-vascularity enhancing lesion characterization
- Cadence CPS technology frame rates up to 85 frames per second – transducer and setting dependent
- Includes an integrated dual-stage Stopwatch enabling on-board synchronization of agent administration and imaging frames. Supports Timestamp event activation with rolling time and frozen time display states
- Supports Mechanical Index and Mechanical Index at Focus displays for increased insight of acoustic power parameters relative to transmit focus
- Supports Time Triggering (from real-time to one image every 15 seconds) and optional ECG Triggering (ECG signal gated triggers)
- PrecisionBurst Depletion-Replenishment technology provides support for sophisticated multi-phasic depletion-replenishment schemes and is user configurable for research requirements
- Offers unique Convergent™ CPS enhancement technology, an integration of Cadence CPS technology with color Doppler energy information (on selected transducers)

Cadence CPS Technology Benefits

- Incredibly sensitive agent detection with outstanding enhancement uniformity
- High frame rate contrast agent imaging at frequencies from 1.5 to 14 MHz

- User image display selection of tissue only, contrast agent only, or both

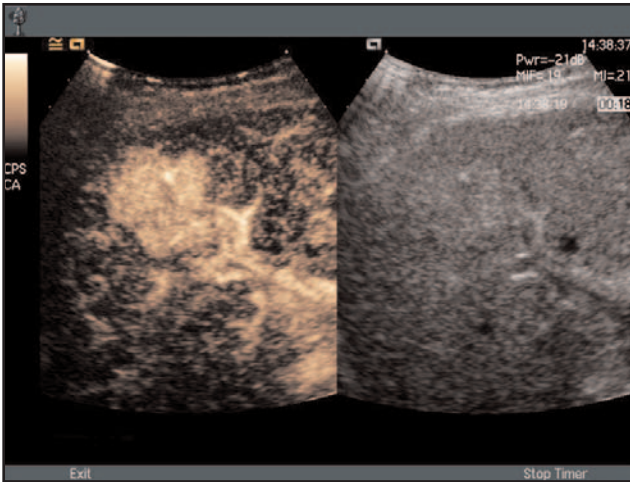
Synergistic Technologies

- TEQ™ ultrasound technology achieves dramatic image quality improvements by instantly, simultaneously and precisely applying noise suppression, axial and lateral gain control for both the tissue signals and the contrast agent signals of Cadence CPS technology
- Live Dual Image Display provides for split screen real-time display of tissue only image and contrast agent image. A unique format for identifying structures that are more easily seen in only one of the two displays, such as with RF ablation studies
- Dynamic Transmit Focusing provides simultaneous focusing of the transmit sound beam in multiple zones with only a single pulse, providing high frame rates with high resolution
- Hanafy lens transducer technology is a patented transducer design that provides continuous elevation focusing in both transmit and receive, providing wide frequency bandwidth and uniform insonification
- DIMAQ™ integrated ultrasound workstation provides Digital Dynamic Clip store in both DICOM and QuickTime formats; clip lengths up to ten minutes in duration; user-configurable Teaching File image structure

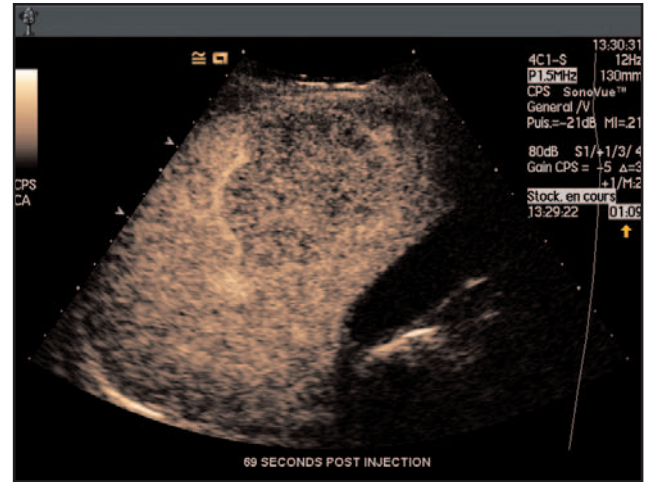
syngo Auto-Tracking Contrast Quantification Option

syngo® Auto-Tracking Contrast Quantification (ACQ) technology provides clinical benefit as an accurate quantification tool for dynamic contrast agent studies.

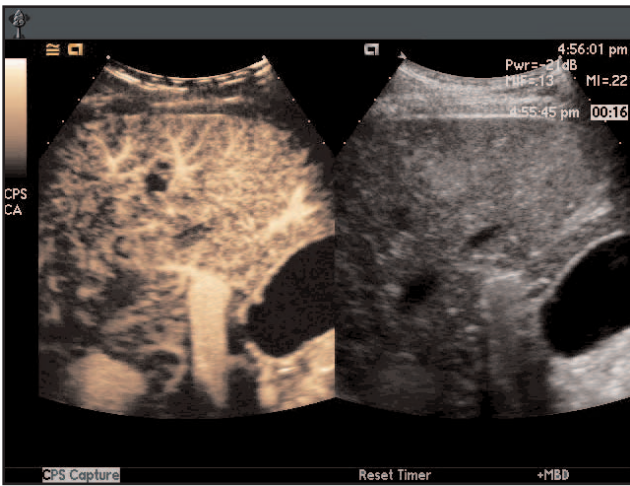
- Takes advantage of the unique ability of Cadence CPS technology to individually process and display tissue, contrast agent or both
- Does not mix tissue data with analysis of contrast agent data
- Utilizes tissue data to track respiratory motion changes via “BreathingDetection” technology
- Exclusively measures contrast agent data to graph intensity changes over time on wash-in
- Up to eight Regions of Interest, user definable
- Capability to export data to USB memory devices



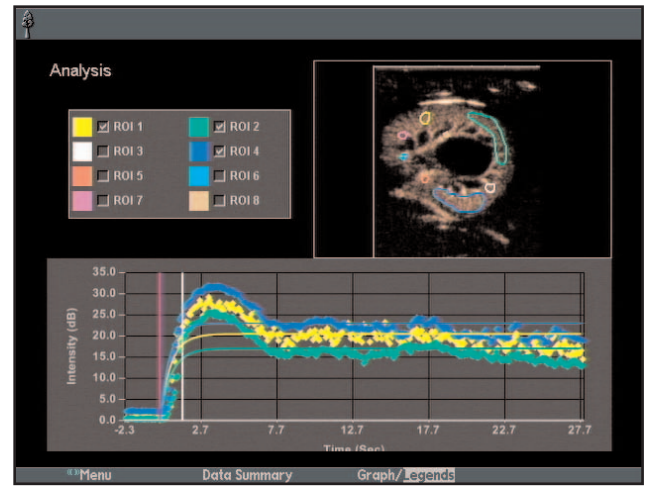
- “Live-Dual” display shows the contrast image on left while simultaneously displaying the 2D tissue image on right.



- “Contrast Agent only” display of metastatic liver disease highlights the tumor borders.



- CPS Capture provides additional information on flow characteristics that can aid in lesion identification.



- syngo ACQ technology calculates contrast agent intensity values over time while uniquely compensating for respiratory motion. (Animal study of rabbit renal perfusion)

* At the time of publication, the U.S. Food and Drug Administration has cleared ultrasound contrast agents only for use in LVO. Check the current regulation for the country in which you are using this system for contrast agent clearance.

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