

TOSHIBA

Aplio

Intelligence in Ultrasound



Ultrasound Department
Medical Systems Company
TOSHIBA



TOSHIBA



- *Full digital system*
- *Widest scope of applications*
- *High flexibility*
- *Research platform*



Product Concept

- Navigation
 - Easy, intuitive operation
- Visualization
 - Quality, real-time images
- Quantification
 - Powerful, quantitative analysis
- Communication
 - Highly efficient data management



Navigation

- Fully Adjustable Panel
 - Swivel, Front/Back, Up/Down
- Ergonomics key layout
 - User programmable
- Large size Color TCS
- Programmable screen layout
- New transducer's shape



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Navigation



Fully Adjustable Panel



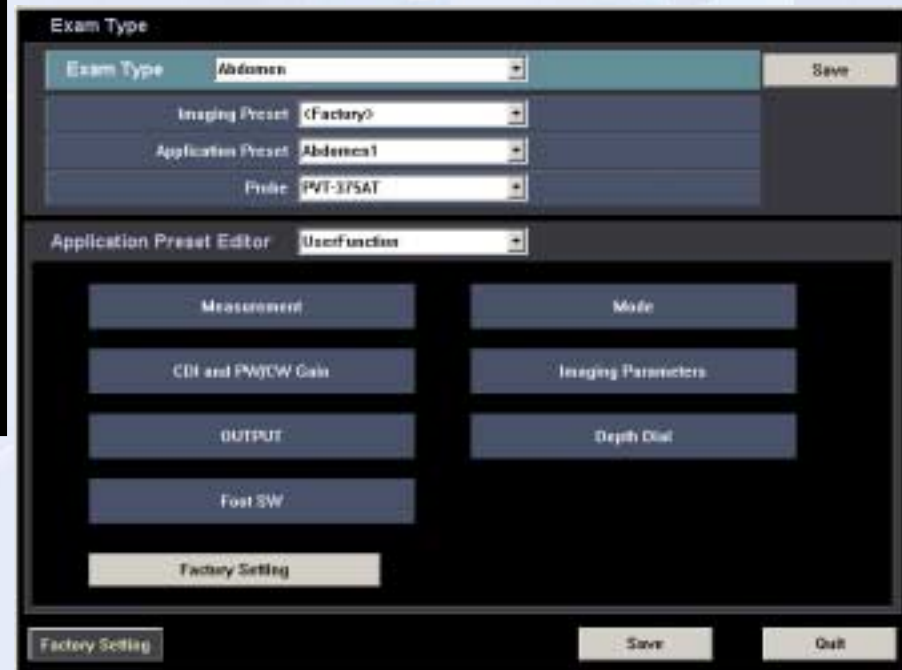
Navigation

Key tops can be replaced

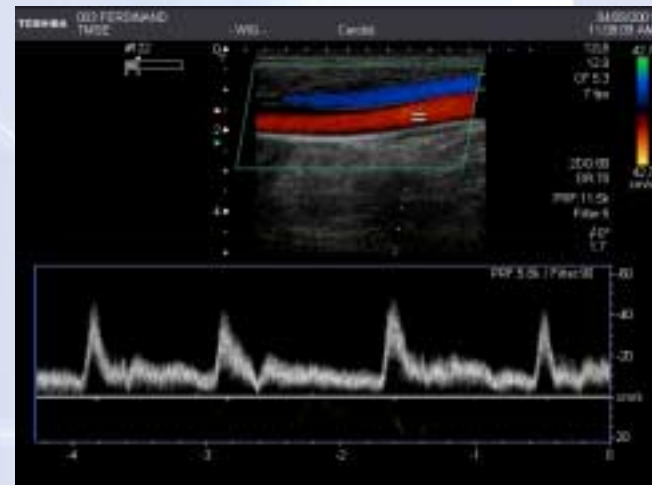
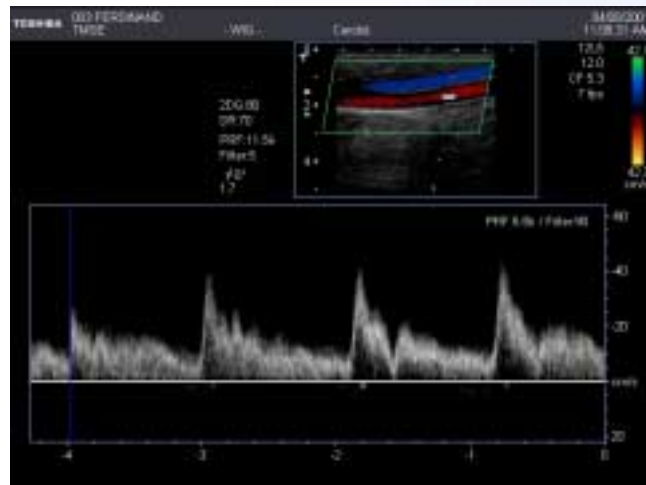


Programmable Panel

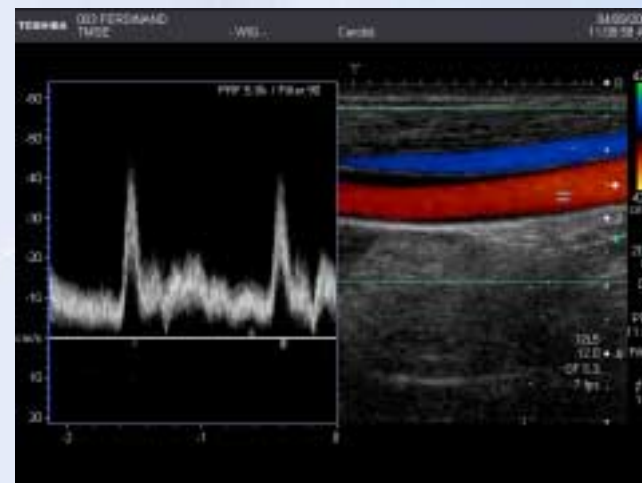
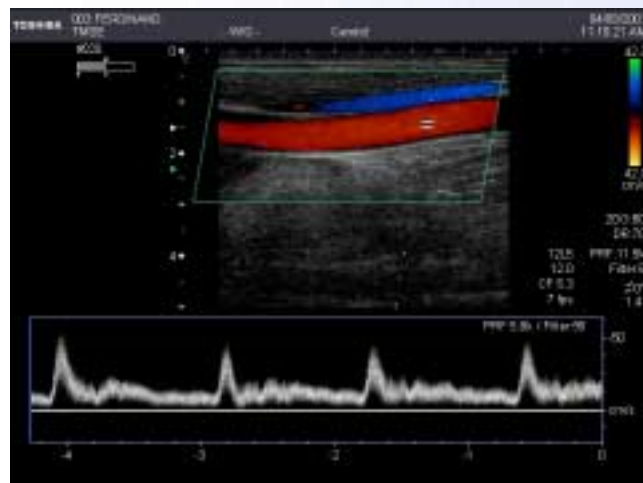
Each key assign can be changed



Navigation



*Programmable
Screen
Layout*



Navigation

New designed transducers



Easy to hold
Light weight
Small diameter cable

High sensitivity
High contrast resolution

Product Concept

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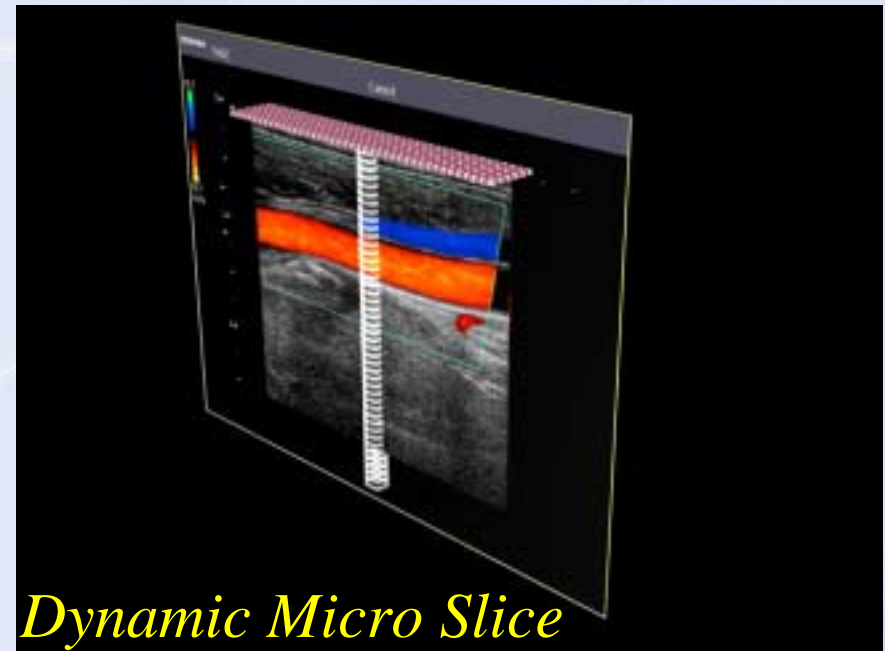
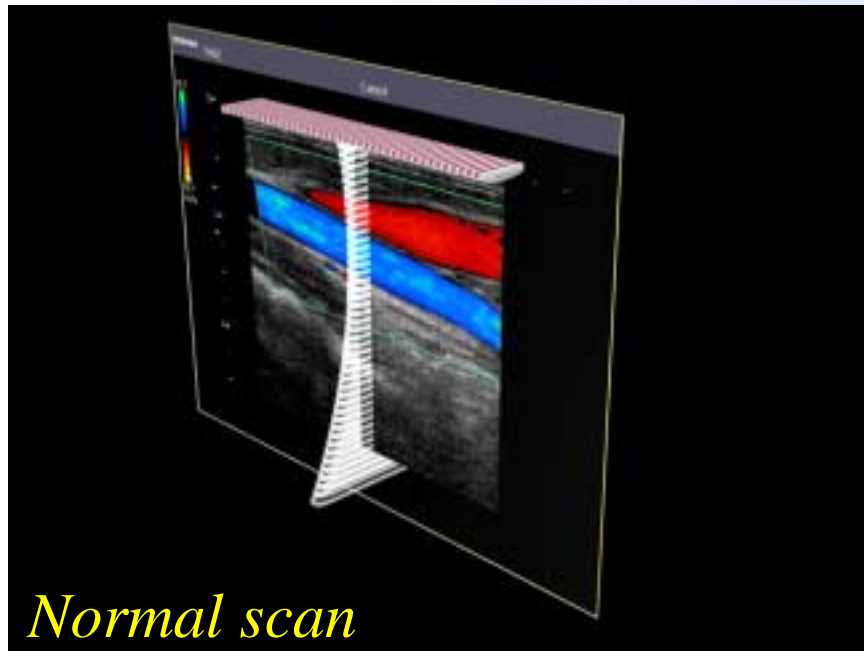
Visualization

- *Pulse Subtraction THI*
 - Fundamental component is deleted completely with this new technology.
 - Superb B-mode image can be obtained.
 - High frequency (14MHz) transducer.



Visualization

- *Dynamic Micro Slice*
 - Matrix array technology to obtain fine beam forming.
 - Excellent Image Quality can be obtained.



Visualization

- ***ApliPure***

- ✓ ***Progressive***

- ✓ ***Uniformity***

- ✓ ***Real Time***

- ✓ ***Enhancement***

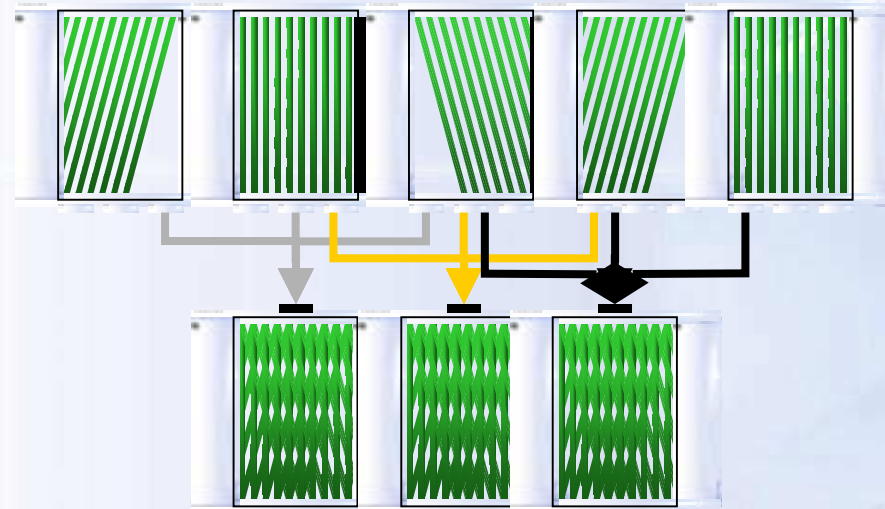
- *New generation of real-time compounding technology delivering ultrasonic images of outstanding clarity and detail resolution. Performing both Spatial and Frequency compounding and can be used in combination with other imaging modalities such as CDI and Fast Fusion 3D*

ApliPure



Visualization

Spatial Compounding

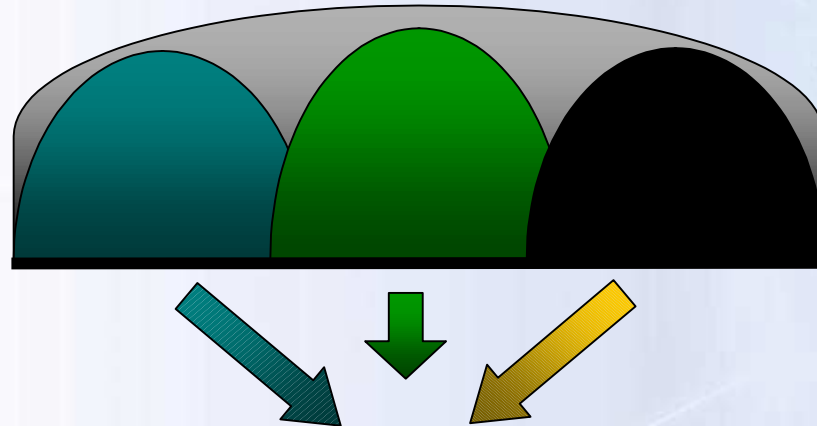


ApliPure uses spatial compounding to sequentially combine ultrasonic images acquired from different scanning directions in real-time

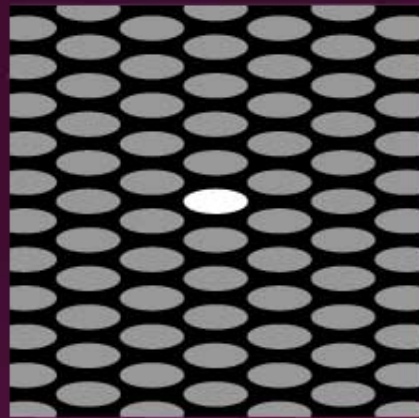


Visualization

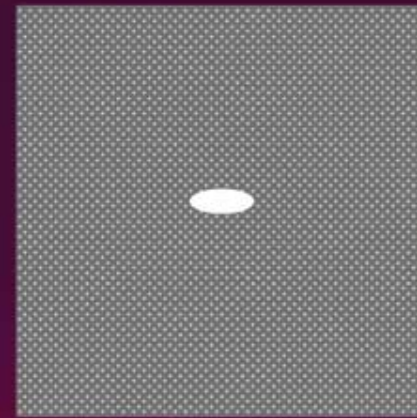
Frequency Compounding



Frequency compounding enables us to acquire multiple images at different frequency bands simultaneously



Spatial
compound



As a result, the uniformity of ultrasonic images is enhanced and the continuity of structures and boundaries is improved. At the same time artifacts are suppressed.

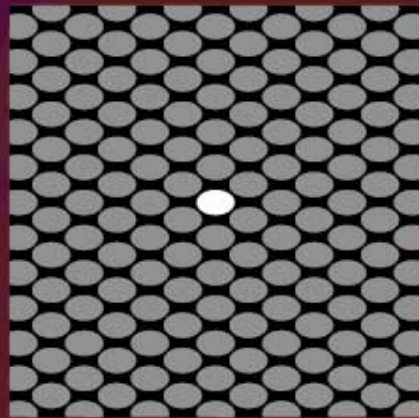
Frequency
compound



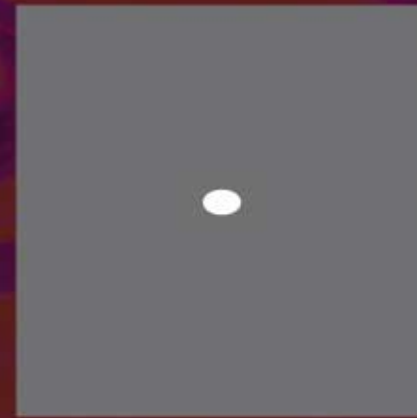
+Frequency
compound



Combining these images in real time greatly enhances contrast resolution of the ultrasonic images, while time resolution and a low persistence level are preserved.



+Spatial
compound

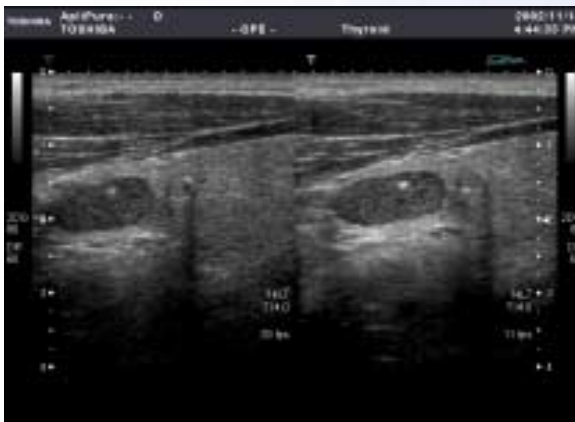
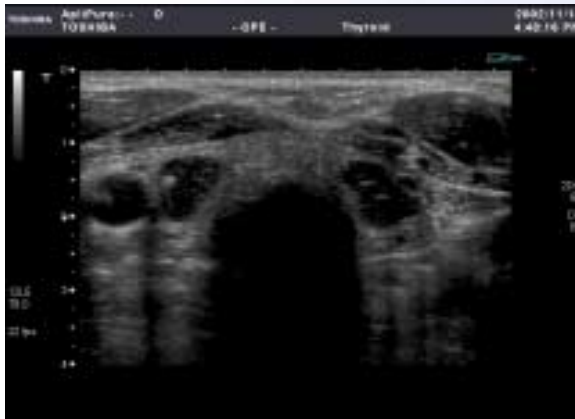


Apli Pure combines the advantages of both spatial and frequency compounding technologies to deliver ultrasonic images of unsurpassed uniformity and detail contrast.

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Visualization

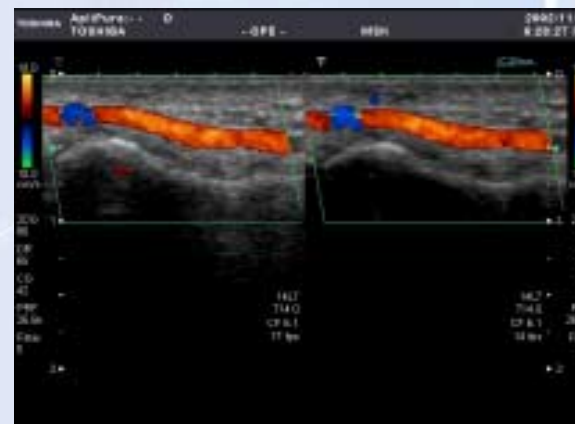
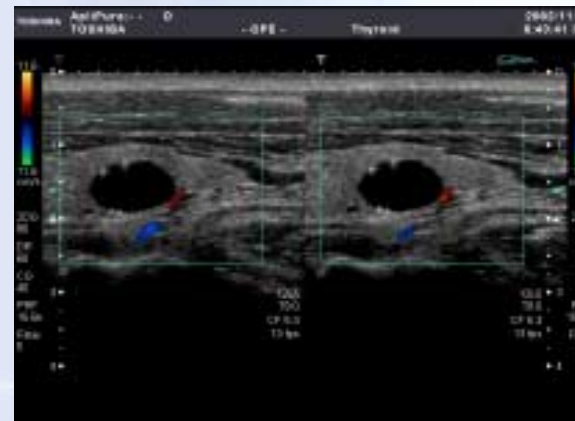
aPure



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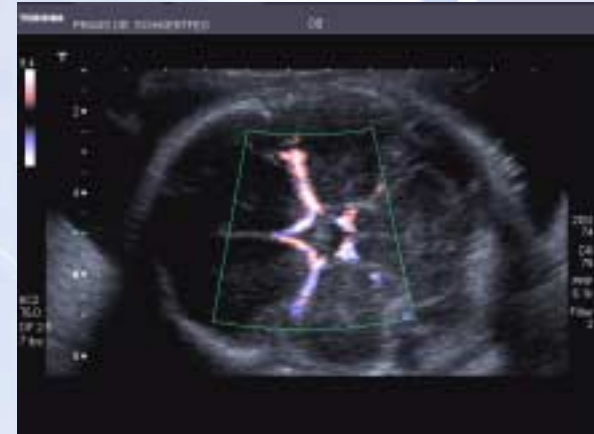
Visualization

A Pure



Visualization

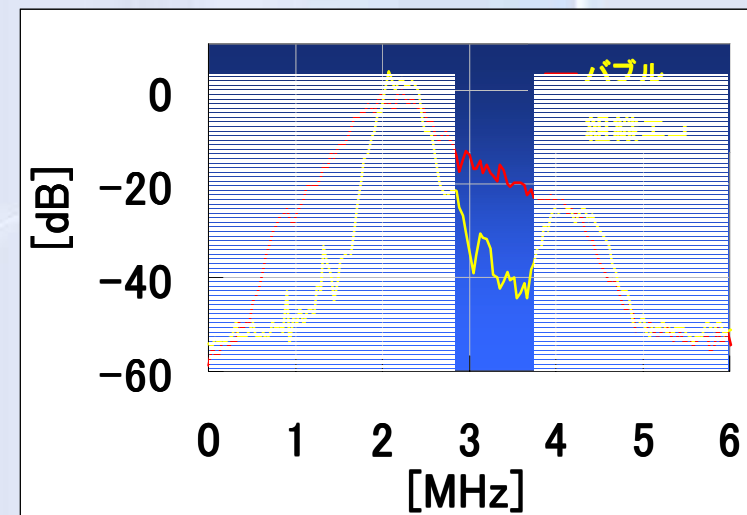
- *Advanced Dynamic Flow*
 - Wide Band Doppler Technique
 - Doppler DIO
 - AIP (Adaptive Imaging Processing)
 - High Frame Rate Imaging
 - High Resolution Imaging
 - Less Blooming/Over-painting
 - Less Clutter noise
 - Directional Display



Visualization

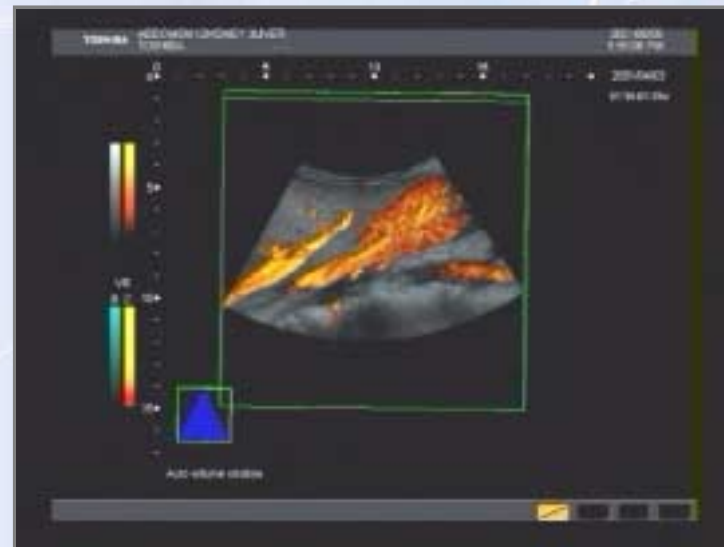
- *Contrast Echography*

- **Aplio is No.1 in the world !**
- Pulse Subtraction Harmonic
- Flash Echo Imaging (for High MI agent)
- Real-time Perfusion Imaging (for Low MI agent)
- 1.5 Harmonic (for cardiac examination)



Visualization

- *Fusion 3D*
 - Speedy interactive Fusion 3D
 - Intuitive functionality and operability



Product Concept

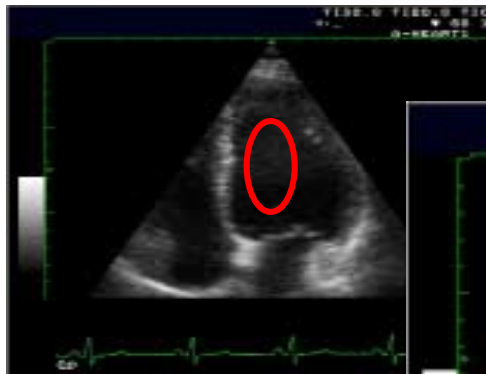
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Quantification

- **Advanced ACT**

- Trace accuracy is Improved ACT from PowerVision series.
- ROI setting method was changed.
- Mitral Annular tracking (New feature)



Quantification

- *Stress Echo*

- Protocols
 - Dobutamin
 - Ergometric
 - Treadmill
 - User Programmable
- 60fps acquisition (2D, CDI, TDI)
- Max. 12Phases x 6Views Display



Product Concept

- Navigation
 - Easy, intuitive operation
- *Visualization*
 - *Quality, real-time images*
- Quantification
 - Powerful, quantitative analysis
- *Communication*
 - *Highly efficient data management*



Communication

- DICOM All service class's supported.
- Patient Browser
 - Patient which can be browsed easily.
- Image filing
 - HDD and MOD(1.3GB) filing.
 - CD-R drive

