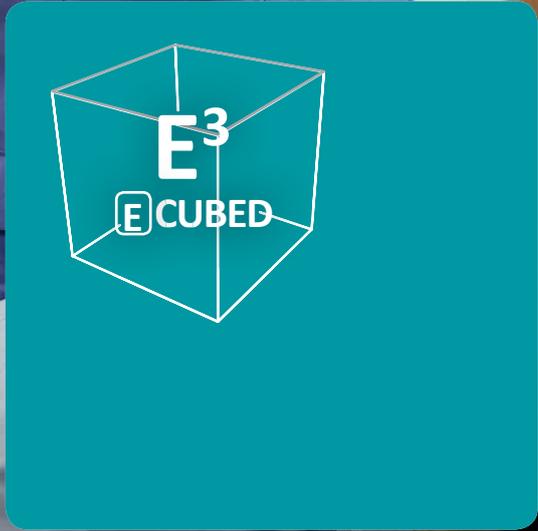


THE VALUE  
INNOVATIVE  
ULTRASOUND  
SYSTEM



ECUBE9

**ALPION**  
MEDICAL SYSTEMS



- E**RGONOMIC DESIGN
- E**FFICIENT WORKFLOW
- E**XTREME ACCURACY



**E** CUBED  
CUSTOMER  
VALUES

High Definition Image

Design Ergonomics

Premium Class Transducers

**E** CUBED  
**E-CUBE9**

The ALPINION E-CUBE series is transforming the field of diagnostic ultrasound, providing maximum value with its unique and reliable technological breakthroughs.

Through the integration of ALPINION's entire core imaging technologies, the E-CUBE 9 provides consistently outstanding performance with **image uniformity** and **superb penetration** even when diagnosing **technically difficult patients**. It routinely delivers high-quality images rapidly from high volumes of patients without case dependency.

The E-CUBE 9 is built around ALPINION's proprietary **single crystal transducer** technology that delivers superior image detail and resolution together with deeper penetration. Other premium features for enhanced clinical efficiency include superior ergonomics, an integrated gel warmer, and protective transducer port covers.

# HIGH DEFINITION IMAGE PERFORMANCE

## Crystal Signature™ - ALPINION's single crystal technology

Science meets engineering in the E-CUBE 9, and the result is unparalleled imaging performance: the single crystal transducer enables not only broadband frequency coverage but also much higher energy conversion efficiency than conventional piezo-ceramic transducer materials - over 90% of theoretical efficiency. In contrast to ceramic materials, ALPINION's single crystal technology reduces waste heat by lowering the acoustic impedance mismatch within the ultrasound transducer. The use of superior single crystal materials results in a wide-bandwidth transducer that provides higher resolution and contrast images.

ALPINION's Crystal Signature™ technology enables users to increase the clinical accuracy and efficiency with the detailed images of deep structures.

ALPINION's flagship Crystal Signature™ technology has at last offered **the largest single crystal convex transducer** ever made, and **the world's first 4D single crystal transducer**. Breakthroughs in engineering and processing have brought this innovative, reliable, and ultra-high sensitivity single crystal technology to a new generation of transducers.



## Innovative Imaging Technologies

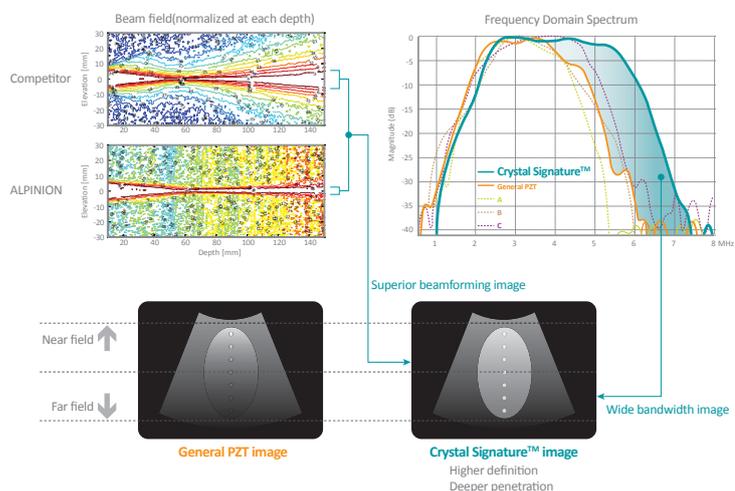
**FleXcan Architecture™**, ALPINION's unique ultrasound imaging platform, provides advanced acoustic processing flow that allows any user to acquire high-quality images easily, accurately, and consistently.

**Optimal Imaging Suite™**, ALPINION's integrated post-processing software technology, automatically optimizes images for specific fields of specialization, removing artifacts and enhancing the contrast between tissues and structures.



### Crystal Signature™ SINGLE CRYSTAL TECHNOLOGY

Crystal Signature™, ALPINION's innovative single crystal technology, is characterized by higher energy conversion efficiency than conventional piezo-ceramic materials, yielding greater uniformity and sensitivity. In contrast to ceramic materials, ALPINION's single crystal technology has properties that reduce waste heat by lowering the acoustic impedance mismatch within the ultrasound transducer. These superior single crystal materials result in a wide-bandwidth transducer that provides higher resolution and superior images to users.



# CLASS LEADER IN DESIGN AND ERGONOMICS

## Design Smart, Work Smart

The E-CUBE 9 is designed for optimal efficiency in both routine daily practice and in advanced clinical examinations. Its ergonomic design not only maximizes convenience for both clinicians and patients, but also aids in diagnosis.

The **Xpeed™** feature supports efficient workflow by enabling rapid optimizing between 2D grayscale mode, color flow mapping for examining vascularity, and Doppler mode, using a simple, one-touch action.

The E-CUBE 9's easily configured **user-definable keys** allow instant access to frequently used functions for streamlined workflows.

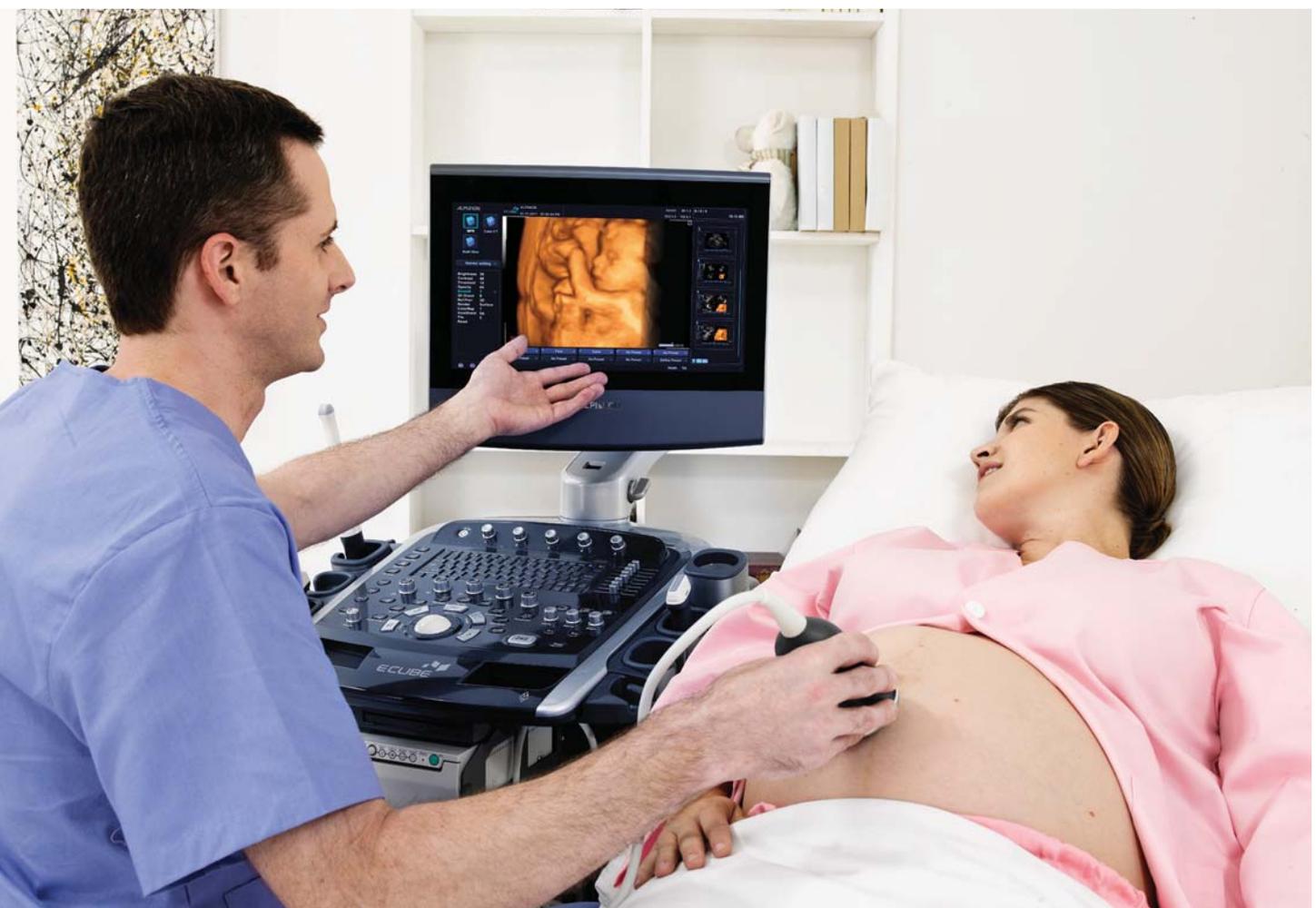
The **articulating monitor arm** permits a more natural interaction with patients during exams. Its design allows users to conduct examinations with minimal effort while

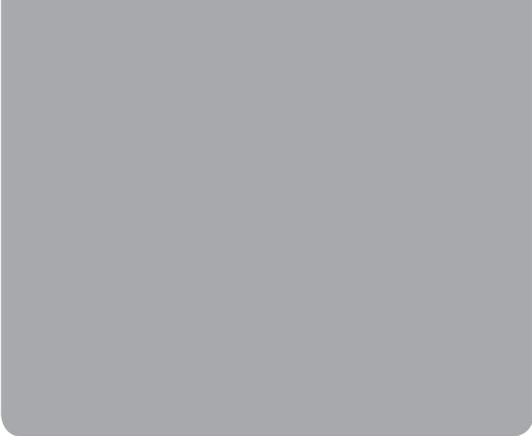
maintaining a comfortable posture. The folding arm also incorporates a unique safety feature that protects the user's fingers when stowing the device. The entire user console raises, lowers and swivels for totally customizable ergonomics.

The **integrated gel warmer** gently heats ultrasound gel to skin temperature, ensuring comfort for patients.

Contoured transducer holders secure the E-CUBE 9's transducers, seating firmly to avoid damaging drops when the system is in transit.

**Micro Pinless transducer connectors** and **sliding port covers** offer a seamless interface and eliminate potential problems caused by contamination.





**SMART  
PERFORMANCE  
ERGONOMIC**



reddot design award winner 2011



# PREMIUM CLASS TRANSDUCERS

## Excellence in Fundamentals

Transducer technology is fundamental to image quality in any ultrasound imaging application. That is why ALPINION has dedicated so much application research and engineering development effort toward a practical, effective single-crystal transducer technology which can provide **superb penetration and wide bandwidth** far exceeding traditional piezo-ceramic transducers.

ALPINION's unique and superb transducers deserve the best integration and ergonomics, so a lightweight, highly **flexible cable** and optimally lightened handle are included for comfortable manipulation.

The benefits of a **lightweight 4D transducer** are especially significant, where reduced size as well as weight contribute to a clearly superior diagnostic environment.

ALPINION's meticulous, ongoing verification of the reliability and image uniformity of our transducers ensures the continuing high quality of all E-CUBE 9's transducers.

Experience E-CUBE 9's all-new transducers, built on innovative technologies and optimized for each application.



### SP1-5 SP3-8

#### Phased array

- Deep Abdomen
- Adult Echo
- Pediatric Echo
- Transcranial

### L3-8 L3-12 L3-12H\* L3-12HWD\*\*

#### Linear array

- Breast
- Thyroid
- Musculoskeletal
- Peripheral Vascular
- Testicle

\* means high density transducer  
\*\* means wide transducer

### C1-6 SC1-6\*

#### Convex array

- Abdomen
- OB/GYN
- Fetal Echo
- Pediatric Echo
- Peripheral Vascular

\* means single crystal transducer

### VC1-6 SVC1-6\*

#### Volume Convex array

- OB/GYN
- Fetal Echo
- Abdomen
- Pediatric Echo
- Peripheral Vascular

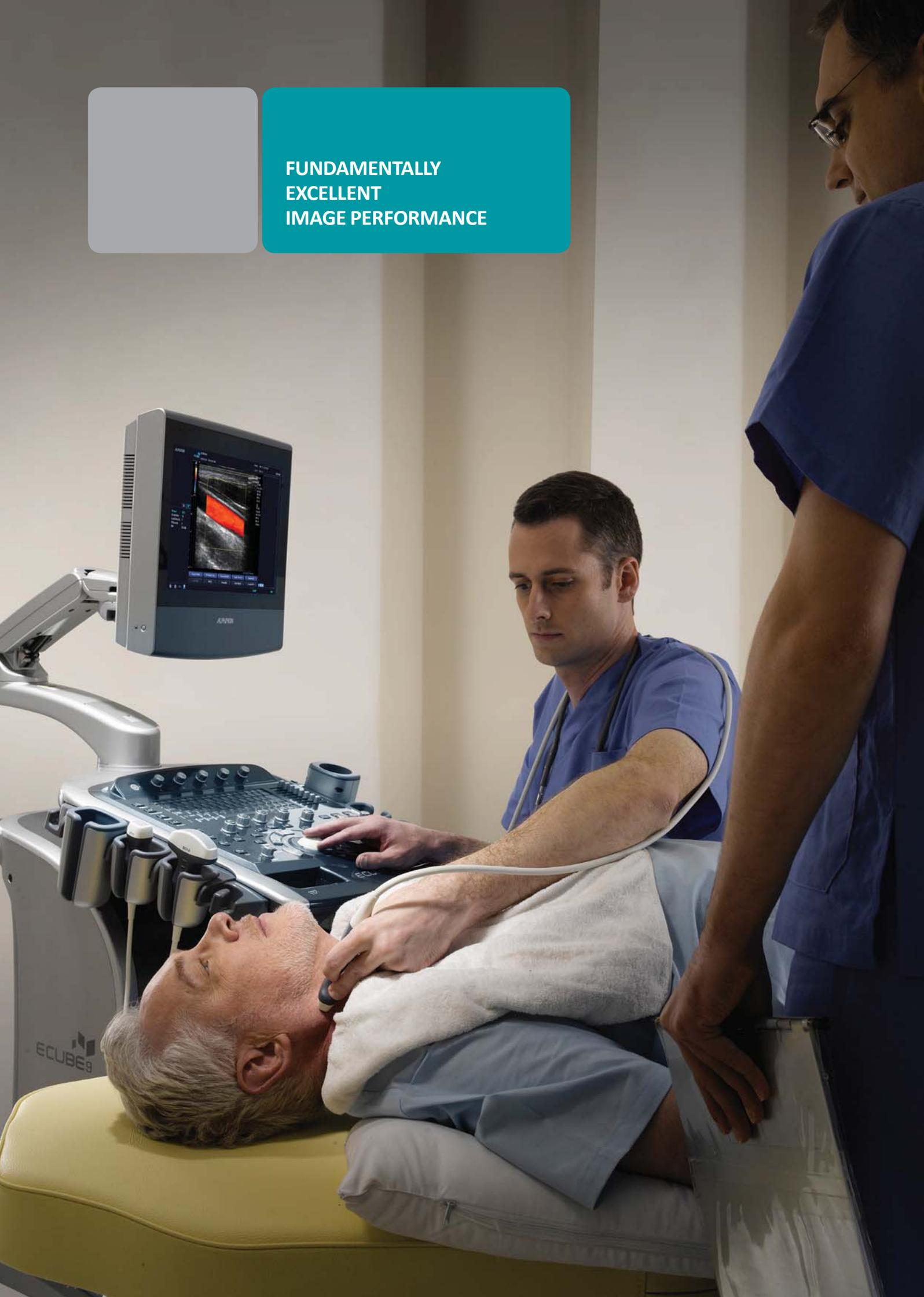
\* means single crystal transducer

### E3-10

#### Transvaginal

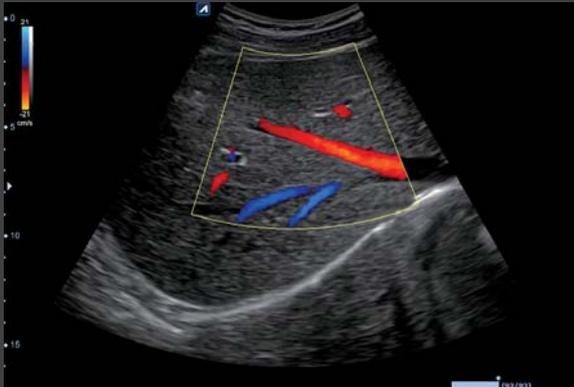
- OB/GYN
- Urology
- Prostate

**FUNDAMENTALLY  
EXCELLENT  
IMAGE PERFORMANCE**



# IMAGE GALLERY

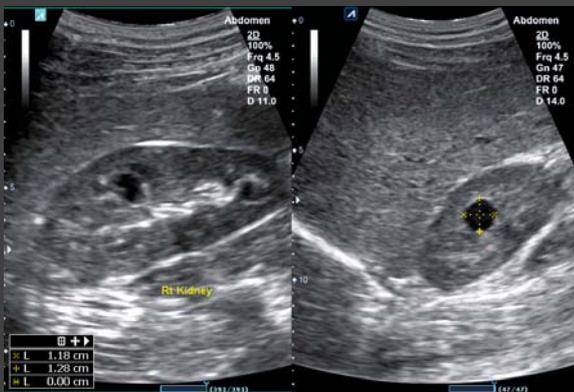
## Abdominal



Hepatic Vein Color Flow Mode



Hepatic Hemangioma

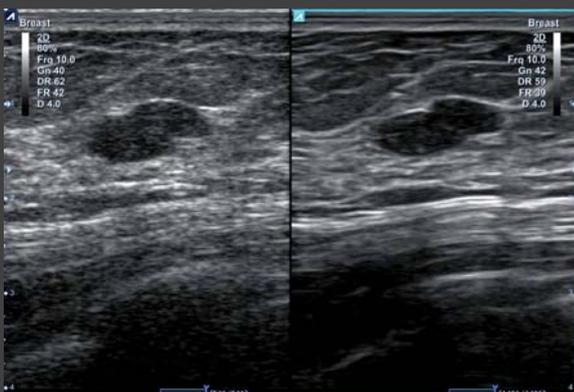


Renal Cyst



Renal Power Doppler Mode

## Women's Health



Breast SRI Before and After Image



Breast with L3-12H<sup>WD</sup> Wide Transducer



19 Week Fetus



Baby Face

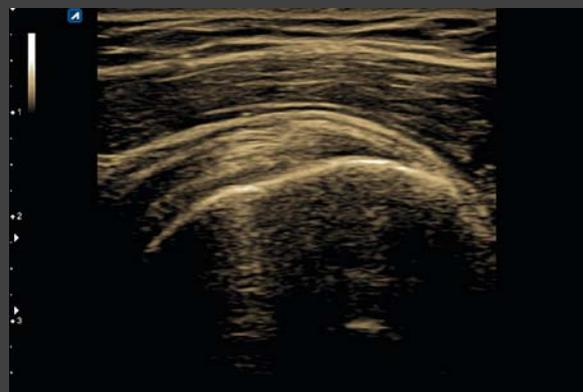
## Small Parts



Thyroid Nodule



Hydrocele



## Cardiovascular



CCA Triplex



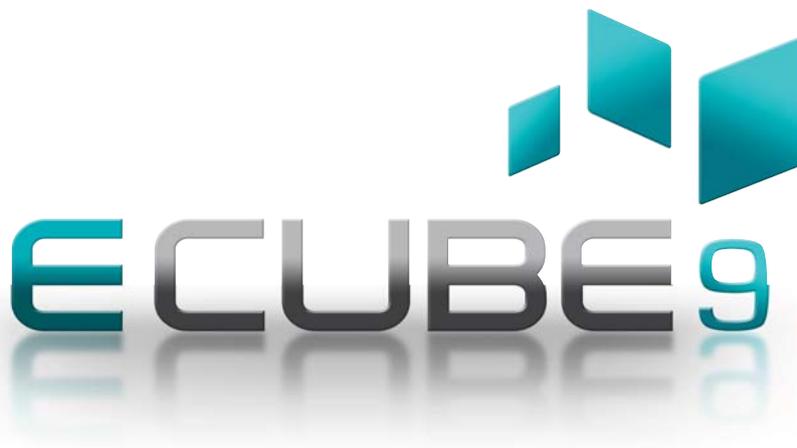
CCA Auto IMT



PSAX



Mitral Valve Regurgitation



#### **About ALPINION MEDICAL SYSTEMS**

ALPINION Medical Systems was established in 2007 as a true value innovator in the imaging technology field for diagnostic ultrasound imaging systems, therapeutic ultrasound systems (HIFU), and advanced piezoelectric and single crystal transducer technologies. The ILJIN Group (ALPINION's sole shareholder) was established in 1967 and is a major Korean business group with a turnover of USD 2 billion (FY 2011) and 2,500 employees globally. The ILJIN Group has business scopes that include industrial materials and components, electricity, networks, construction, medical, broadcasting, and finance.

**For more information about ALPINION, visit our website at [www.ALPINION.com](http://www.ALPINION.com).**



#### **ALPINION MEDICAL SYSTEMS**

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