



## XCUBE 90 with *Elite*

eXtensive Insight  
eXpanded Capability  
eXceptional Care

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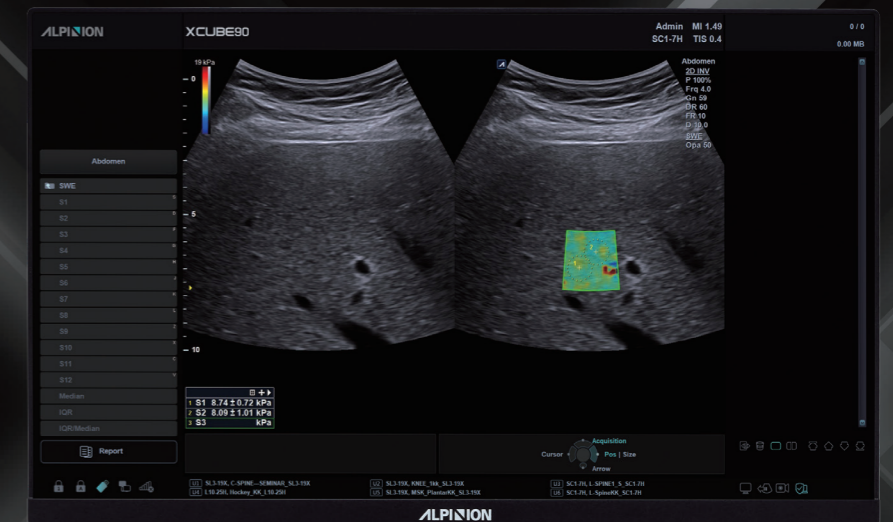
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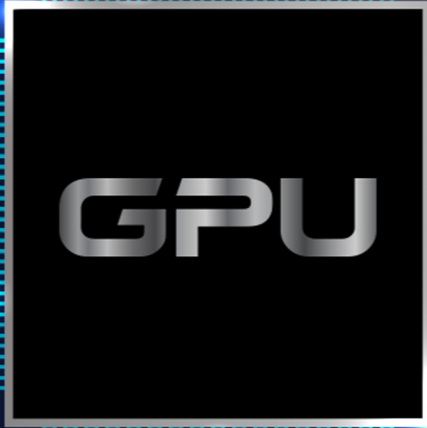
MKT-XC90-SS-PC-E2309-V1.2

# Infinite Insight XCUBE 90 with *Elite*



**ALPINION MEDICAL SYSTEMS**  
We are Ultrasound Professionals





# Elite Performance Elite Result.

X-CUBE 90 with Elite, the leadership model of the X<sup>+</sup> Architecture platform, has evolved to higher diagnostic confidence. This refinement is achieved through enhanced image performance on a more powerful (or robust) GPU and a immersive experience with its newly designed 23.8" bezel-less monitor.

X-CUBE 90 with Elite delivers higher capabilities in terms of Deeper penetration, Clearer tissue expression, Higher uniformity with higher increased resolution. These advancements are enabled through the optimization of advanced filters and image processing algorithms.

# A step towards the continued evolution.

The accompanying new features; new mixed mode in 3D/4D, advanced X<sup>+</sup> Micro View, and an improved workflow that include such as expanded measurement labels will bring new value and benefits for your efficiency and diagnosis confidence.

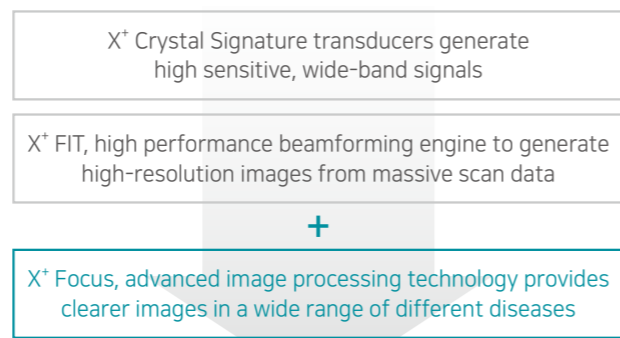
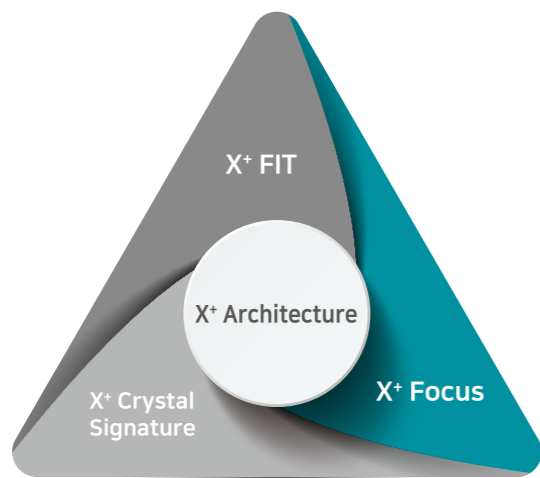


# eXtensive Insight

## Powered by X<sup>+</sup> Architecture

X<sup>+</sup> Architecture is a premium imaging platform created by combining X<sup>+</sup> Crystal Signature™, the transducer technology with high sensitivity, wideband, and X<sup>+</sup> FIT, ALPINION's cutting edge beamforming and data processing technology. The X-CUBE 90 with Elite has undergone a comprehensive system upgrade that integrates advanced image processing technology X<sup>+</sup> Focus. X<sup>+</sup> Focus reduces noise and artifacts to provide excellent contrast resolution delicately. The most important factor for accurate and confident diagnosis is image quality. X<sup>+</sup> Architecture supports your expertise.

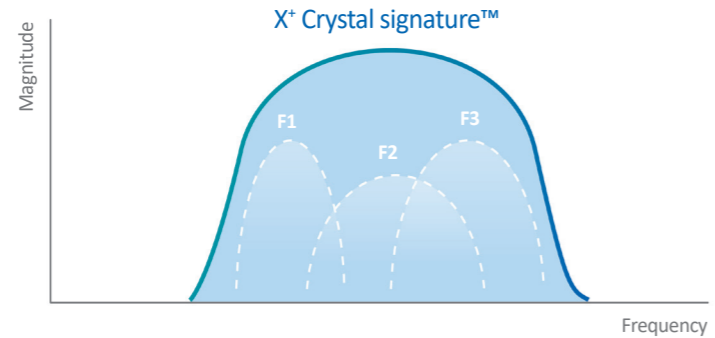
### Advanced X<sup>+</sup> Architecture



- Resolution
- Penetration
- Uniformity

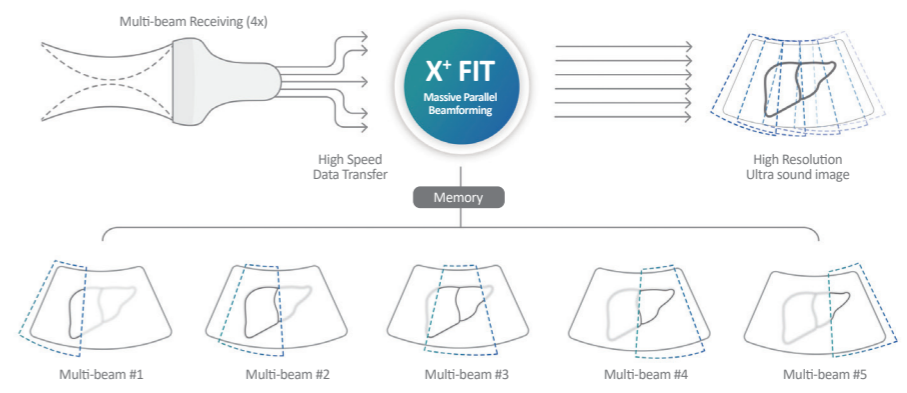
### X<sup>+</sup> Crystal Signature™

Upgraded single crystal and a special material matching layer and backing material allow heat dissipation and minimize signal loss. ALPINION's signature transducer technology allows you to experience insightfully clear image quality with high sensitivity and wideband, which shows significant improvements in image resolution, contrast, and uniformity. ALPINION develops and manufactures its own transducers, the key to ultrasound imaging.



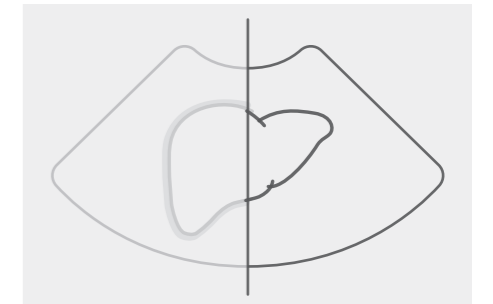
### X<sup>+</sup> FIT

X<sup>+</sup> FIT is a beamforming technology which improves resolution, frame rate, and uniformity. X<sup>+</sup> FIT utilizes massive parallel beamforming whose architecture is capable of transmitting 4 times larger volume with 10 times faster capacity and also processing data 14 times faster than our previous model (E-CUBE 15 Platinum). X-CUBE 90 with Elite's high resolution imaging is a prerequisite for accurate diagnoses and quick decision-making.



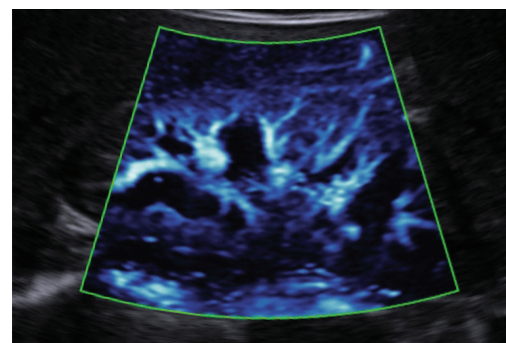
### Advanced X<sup>+</sup> Focus

X<sup>+</sup> Focus is the new image processing technology that displays a clearer image. It brings optimal image quality by enhancing true clinical information and suppressing unnecessary noise and other artifacts. Advanced X<sup>+</sup> Focus technology, integrated into the X-CUBE 90 with Elite, elevated the level of image performance in terms of Resolution, Penetration, and Uniformity through an evolved SRI library, optimized INV mode, and special image processing algorithm.



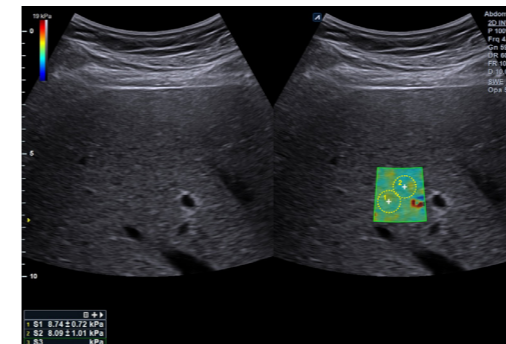
# eXpanded Capability

X-CUBE 90 with Elite is designed to provide objective and accurate diagnoses based on expanded technology. Intelligent clinical features upgrade diagnostic accuracy to new levels. Broaden your skills and range of capabilities.



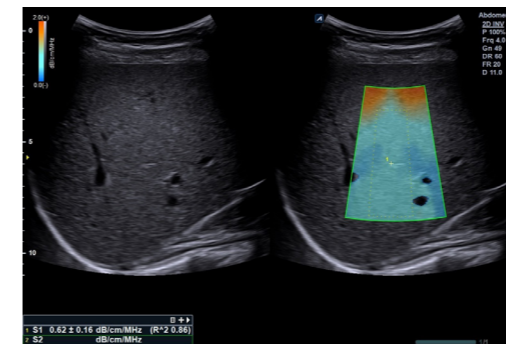
## Advanced X+ MicroView

The advanced X+ MicroView offers a more intuitive and clear visualization of the micro blood flow structure. Its higher sensitivity detects and visualizes signals of smaller blood flow. Additionally, it visualizes low-speed micro blood flow areas at a fast frame rate.



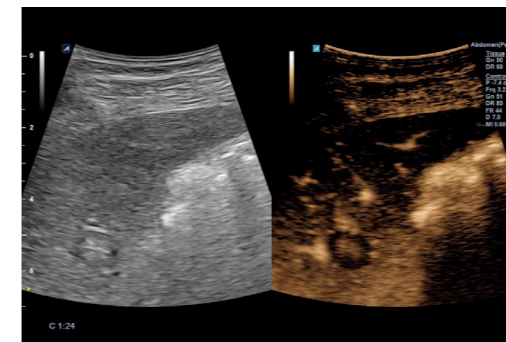
## Shear Wave Elastography (SWE)

Shear Wave Elastography evaluates tissue stiffness. This non-invasive and advanced tool provides quantitative assessment for chronic liver disease and suspicious nodule of Thyroid and Breast. The reliable and reproducible result of SWE helps to increase diagnostic confidence.



## Attenuation Tissue Imaging (ATI)

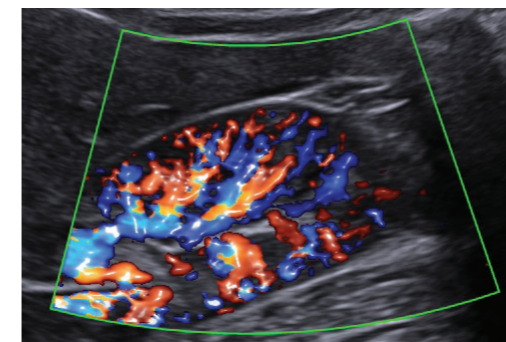
The ATI quantifies the attenuation to measure the level of steatosis with color-mapped image. The ATI provides quickly calculated value with high reproducibility for diagnosis efficiency. Nonalcoholic fatty liver (NAFLD) is the most common cause of liver dysfunction, with a prevalence of up to 20% of the total population in world wide.



## Contrast-Enhanced Ultrasound (CEUS) with TIC

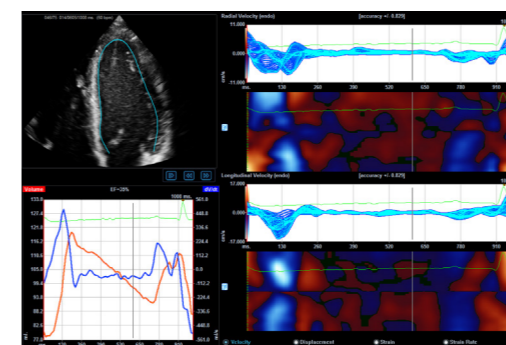
This is a function to diagnose patients using various angiographic patterns that appear while a contrast medium, administered intravenously, diffuses in blood vessels and organ tissue. CEUS has many advantages in various clinical indications for liver disease.

In addition, Time Intensive Curve (TIC)-analysis available with CEUS is a quantitative tool for the dynamic evaluation of target lesions.



## Brilliant Flow

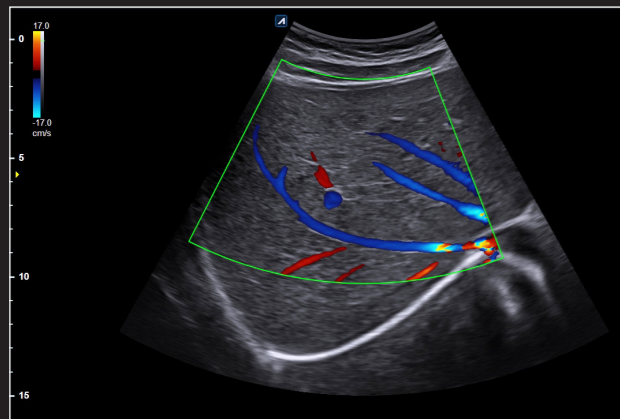
It is a special visualization impact technology of blood flow. It provides the intuitive understanding of vessel structure and boundaries by images of blood vessels that look like 3D on a 2D gray scale image. It may provide additional spatial information in CF, PDI or X+ MicroView.



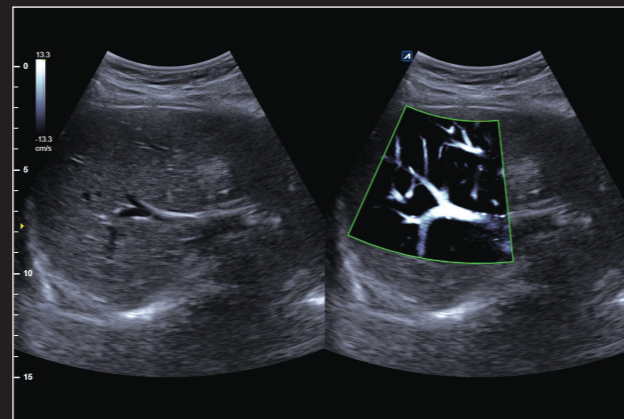
## CUBE Strain™

This is a non-invasive examination method that is used to assess the myocardial function more objectively. Users can track speckles in 2D heart images, digitize the movement of each myocardial segment, and check quantified data.

# Powered by X<sup>+</sup> Architecture



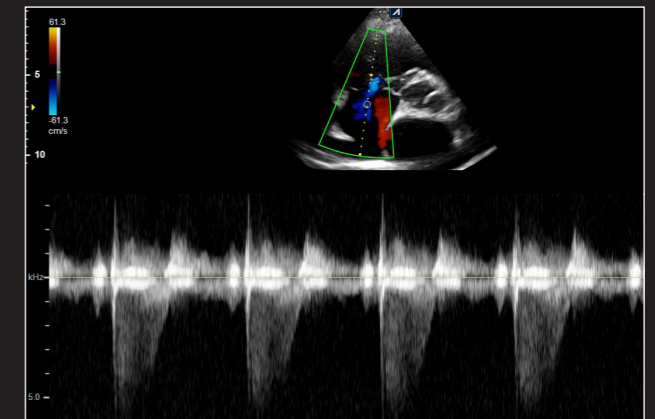
Hepatic Vein in CF mode



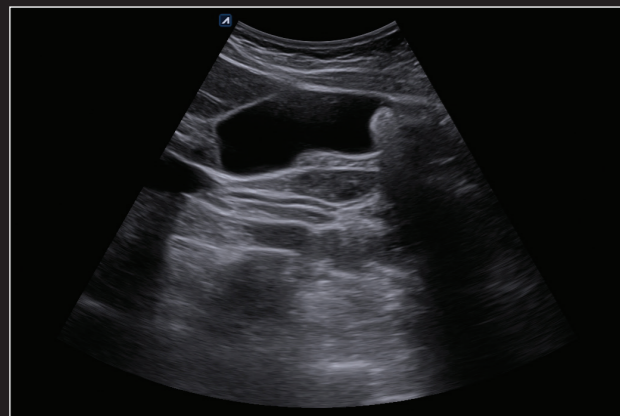
X<sup>+</sup> MicroView of Portal Vein



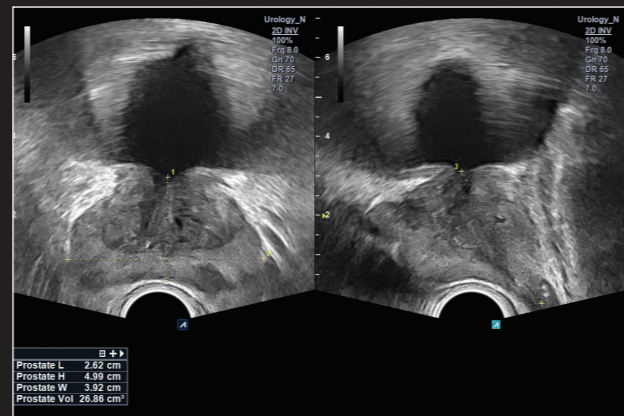
Mitral Valve Short Axis



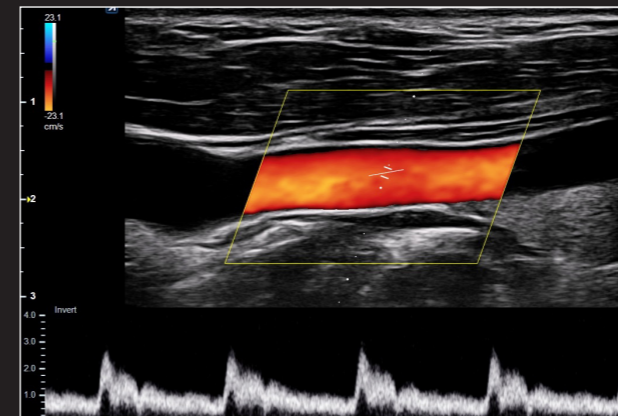
Tricuspid Valve Regurgitation



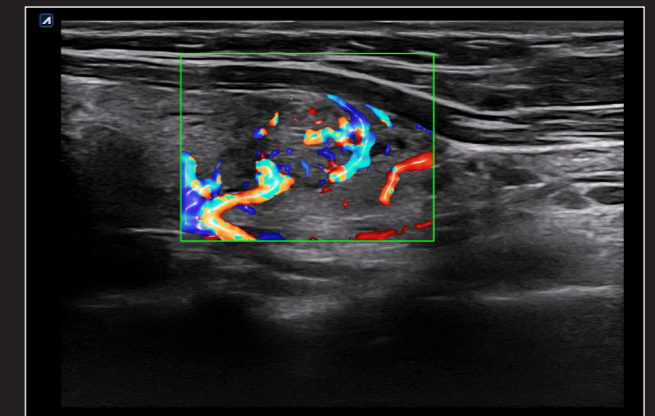
GB Stone in B mode



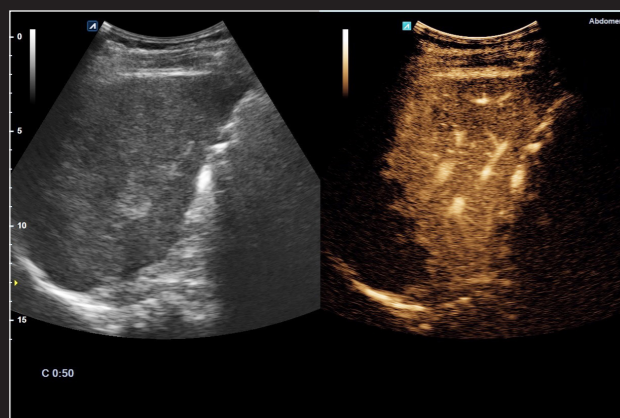
Prostate in B mode



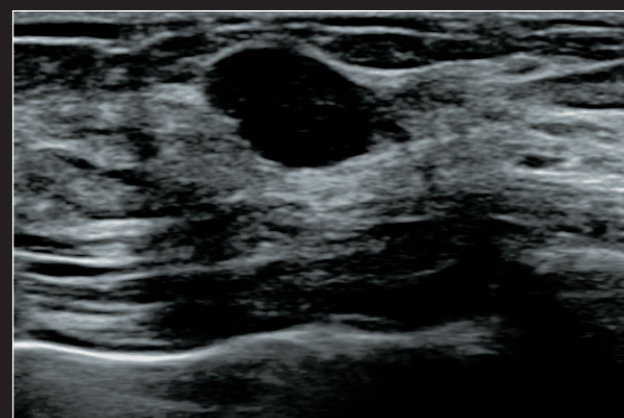
Carotid Artery



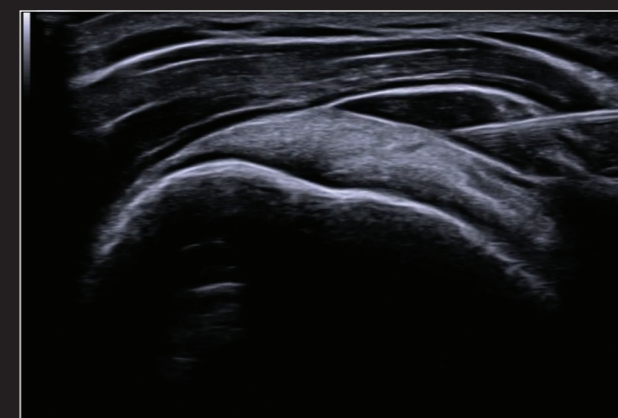
Brilliant Flow of Thyroid Nodule



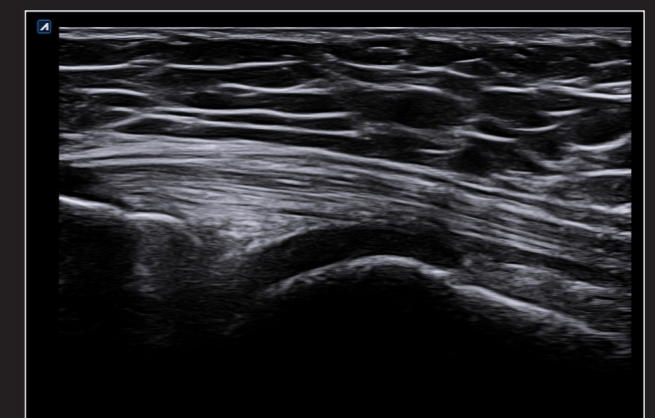
CEUS of Liver



Breast Fibroadenoma



US Guided Injection of Supraspinatus Tendon



Quadriceps Tendon

# eXceptional Care

The detailed work process designed by X-CUBE 90 with Elite cares about realizing a more efficient working environment for medical professionals. Comprehensive tools such as auto measurement, analytics, exam assists, and ergonomic design increase productivity across a wide range of patient cases and applications.

## Power Preset

With a single touch, users can load a transducer with allocated image preset. Quick and easy application of preset shorten the image setup time.

## Time Saving Solution

Quick system ready by fast boot-up in 1 minute. And the built-in battery guarantees mobility while it is in use. When not using the system, Sleep mode helps save energy and quickly boot up in 6sec.

## Antivirus Solution

As X-CUBE 90 with Elite automatic virus scanning function is activated whenever the system boots, patients' information is more securely protected.

## On-line Connection

With the Online Connection solution, direct support for customers through online chat and face-to-face talk is possible anywhere.

## Wide FOV

The wide field of view provides more anatomical structures in real time. The extended view helps better understanding of the relationship between organs and additional anatomical information improves value of a report.

## X+ Assistant

X+ Assistant enables users to reduce keystrokes by at least 50% and save time when conducting examinations. Registered optimal scan protocols that follow guidelines that each application requires help to reduce operator's fatigue and increase efficiency in operation. In addition, it is also possible to register applications and protocols optimized.

## X+ Compare

This is a feature that allows users to import patients' previous study from a PACS server or hard disk and compare when scanning and reviewing. By comparing previous images of the same region, users can easily observe the patient's progress, thereby making this feature useful for providing patient care. X+ Compare can be used not only in scan mode, but in review mode (E-View) as well.

\* X+ Compare supports ultrasound studies only.

## Auto Measurement Solutions

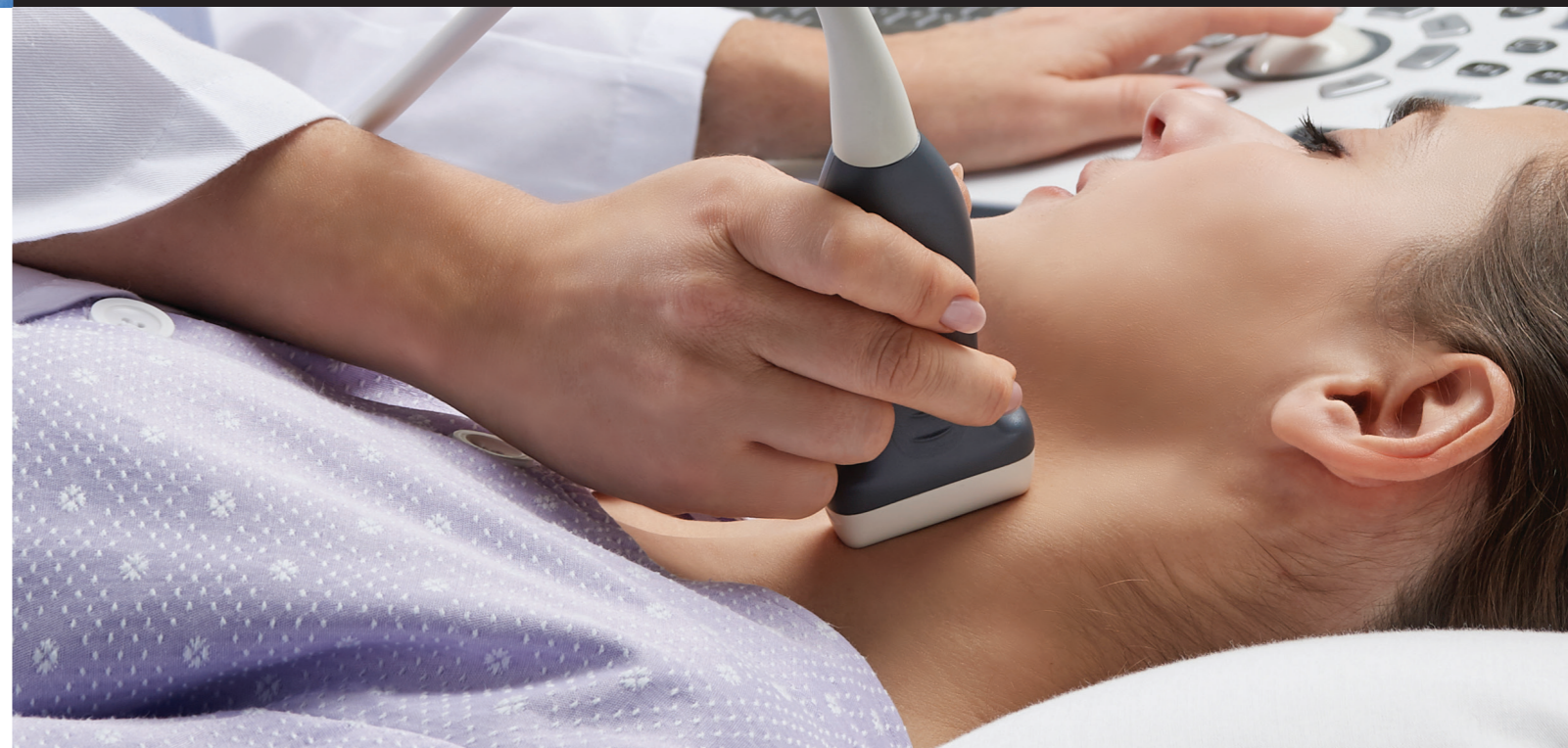
Such as Auto IMT™, Auto EF, and an assessment system for the breast and thyroid image enhance productivity.

## Needle Vision™ Plus

This feature shows the shape and orientation of the needle clearly in real time. Using Beam Steering technology, detect and locate the needle precisely.

## USB Real-time

USB real-time recording makes data storage easier by allowing users to record ultrasound scan images on USB memory in real time. Videos are recorded as high-definition and stored in system quickly.



# Intuitive design for your daily practice



## 23.8 inch FHD LED Screen

Enjoy a larger widescreen and clear, high-definition images.



## Compact Size & Weight

Its compact size and light weight measuring 85 kg provides great mobility.



## Motorized Control Panel

The control panel can be easily adjusted vertically with its motorized button.



## 4 Swivel Wheels

Thanks to the 4 swivel wheels, the system can be moved around with a little effort and can be operated comfortably in any position.



## Additional Probe Holder

Providing more ease to pick up the transducer and gel, the additional holder provides a convenient diagnostic environment to fit the body shape of user.



## 12.1 inch Tilting LCD Color Touch Panel

We've combined angle adjustment functionality with its larger, full-color touch panel to maximize user convenience.

## 320° Articulating Monitor Arm & ±90°, 60° Angle Adjustable Gel Warmer

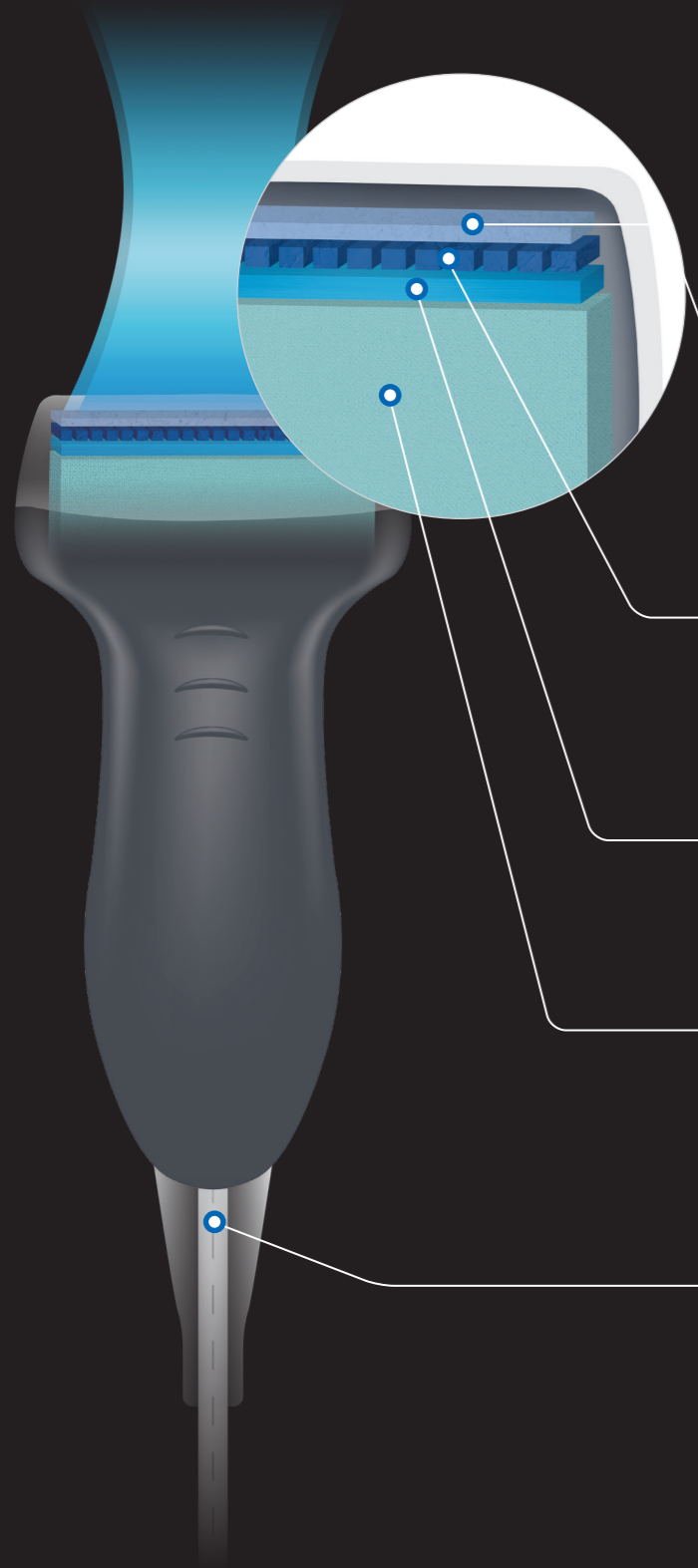
Ergonomic design helps to promote healthy posture, which reduces musculoskeletal pain.

## 5 Transducer Ports

You can use a variety of transducers as required with no need to replace them, and thus saving time during conducting diagnosis.

# ALPINION's Transducer Technology

The key to transducer technology is its process of generating a high sensitivity and wideband acoustic signal and receiving it without any loss, then converting it to a digital signal. ALPINION MEDICAL SYSTEMS has researched and developed the core technology of transducers and X<sup>+</sup> Crystal Signature™ is the accomplishment of all the innovative technologies we've accumulated.



## X<sup>+</sup> Crystal Signature™

### Special matching layer

We use a special material to increase the penetration efficiency of the acoustic power, thereby improving sensitivity and bandwidth.

### Upgraded Single Crystal

The upgraded single crystal features improved transmissivity of the ultrasound and produces high-resolution images.

### Quasi decoupling layer

Its unique structure increases ultrasound penetration efficiency and makes it possible to reach deeper tissues.

### Signal loss minimization

ALPINION's special material minimizes signal loss and maximize heat dissipation with our special material.  
\* Thermal conduction efficiency increased 3.5 times compared to our previous product

### High sensitivity signal transmission

High performance low loss cable transmits high sensitivity signals to achieve optimal impedance matching with the system.



# Transducers

Developed and manufactured by ALPINION

Convex			Volume Convex	
<b>SC1-7H</b> X <sup>+</sup> Crystal Signature™ High Density Single Crystal Convex Abdomen, OB/GYN, Pediatric, EM, Urology	<b>SC2-9H</b> X <sup>+</sup> Crystal Signature™ High Density Single Crystal Convex Abdomen, OB/GYN, Pediatric, EM, Urology	<b>SC2-11H</b> X <sup>+</sup> Crystal Signature™ High Density Single Crystal Microconvex Abdomen, OB/GYN, Pediatric, EM	<b>SVC1-8H</b> Single Crystal Volume Convex Abdomen, OB/GYN, Pediatric, EM, Urology	
Linear				
<b>SL3-19X</b> X <sup>+</sup> Crystal Signature™ Extreme High Density Single Crystal Linear, Seamless window Abdomen, Pediatric, OB/GYN, EM, MSK, Vascular, Small Parts, TCD	<b>SL3-19H</b> X <sup>+</sup> Crystal Signature™ Extreme High Density Single Crystal Linear, Seamless window Abdomen, Pediatric, OB/GYN, EM, MSK, Vascular, Small Parts, TCD	<b>L3-12X</b> High Density Linear Pediatric, EM, MSK, Vascular, Small Parts	<b>L3-8H</b> High Density Low Freq. Linear Breast, EM, MSK, Vascular, Small Parts	<b>L10-25H</b> Wideband Ultra High Crystal Linear, Seamless window EM, MSK, Vascular, Small Parts
Endocavity				
<b>IO7-18</b> <span style="border: 1px solid black; padding: 2px;">New</span> High Frequency Hockey Stick MSK, Superficial	<b>EC2-11H</b> X <sup>+</sup> Crystal Signature™ High Density Single Crystal Endocavity(Straight), Small tip, FOV MAX.230° OB/GYN, Urology, EM	<b>EV2-11H</b> X <sup>+</sup> Crystal Signature™ High Density Single Crystal Endocavity(Curved), Small tip, FOV MAX.230° OB/GYN, Urology, EM	<b>VE3-10H</b> Volume Endocavity OB/GYN, Urology, EM	
Phased Array		Pencil		
<b>MP1-5X</b> X <sup>+</sup> Crystal Signature™ Abdomen, Pediatric, Cardiac, EM, TCD	<b>SP3-8T</b> Single Crystal Phased Array Abdomen, Cardiac, EM, Pediatric	<b>CW2.0</b> Pencil Typed Cardiac	<b>CW5.0</b> Pencil Typed Cardiac	<b>CW8.0</b> Pencil Typed Cardiac

\* A TEE transducer is available