



**ACCUVIX V20**  
The Supreme 3D/4D Ultrasound

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[www.medison.com](http://www.medison.com) | [marketing@medison.com](mailto:marketing@medison.com)

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# The Supreme 3D/4D Ultrasound

Since launching the first commercially available 3D ultrasound system in 1998, MEDISON continues to be a global leader in 3D/4D ultrasound. Over the years MEDISON has introduced numerous innovative 3D/4D technologies including Multi-Slice View™ and Oblique View™ providing increased diagnostic confidence and workflow while decreasing repetitive stress injuries.

**MEDISON: The premier 3D/4D ultrasound company.**

Designed on a foundation of high-resolution 2D, 3D and 4D imaging, the new ACCUVIX V20 is the equipped with revolutionary new technologies including Color STIC™, Inversion 3D, OVIX™ and VCE™. Equally as impressive, MEDISON has fused the precision and consistency of CT (Computer Tomography) and MRI (Magnetic Resonance Imaging) with 3D ultrasound in an exciting new technology called Multi-Slice View™. These new interactive tools allow more information to be reviewed in a shorter amount of time with greater accuracy.

The advanced ergonomic design of the ACCUVIX V20 offers a high-resolution flat panel monitor with articulated arm to maximize comfort and efficiency when scanning.



**ACCUVIX V20**

# Revolutionary 3D/4D Performance

ACCUVIX V20 offers unprecedented 3D/4D performance through a simplified intuitive interface to insure efficient diagnostic interaction. The intuitive nature of the ACCUVIX V20 continues with the introduction of the "3D Orientation Cube™" designed to assist both the novice as well as experienced 3D user providing confident right/ left, anterior/ posterior, as well as cephalic/ caudal orientation within the volume data set.

The user environment of the ACCUVIX V20 provides a variety of advanced interactive technologies including 3D XI™, XI VOCAL™, OVIX™ (Oblique View eXtended) resulting in more efficient use of time and greater diagnostic confidence. ACCUVIX V20 intuitive design delivers peak performance.



The innovative VolumeOS (Volume Operating System) of ACCUVIX V20 is the most advanced user environment among 3D/4D ultrasound systems. VolumeOS adopts a variety of technologies, such as 3D XI™, XI VOCAL™, OVIX™ (Oblique View eXtended) and others, which combine to provide an innovative interface freeing doctors from unnecessary search time to see and analyze the section they want for a speedier diagnosis. At the same time, an instinctive guide function like Orientation Cube™ and others is provided for users with relatively less experience in 3D/4D diagnosis for easier use of its high-tech functions.

## More robust 3D XI™

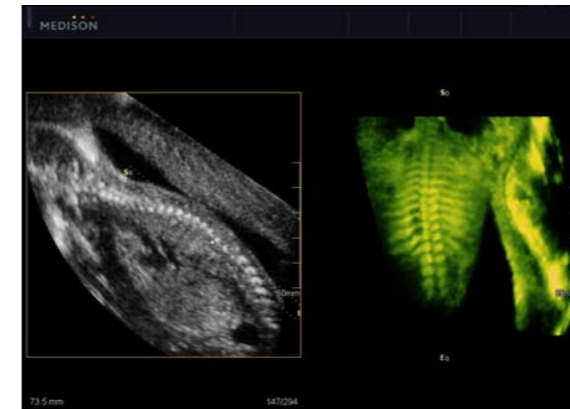
Building upon the revolutionary capabilities of 3D XI™ (Multi-Slice View™, Oblique View™, Volume CT View™) MEDISON has also incorporated XI VOCAL™ and OVIX™ (Oblique View eXtended).

### - XI VOCAL™

XI VOCAL™ displays sequential parallel slices of 3D anatomy to facilitate more precise volume analysis of irregularly shaped structures.

### - OVIX™ (Oblique View eXtended)

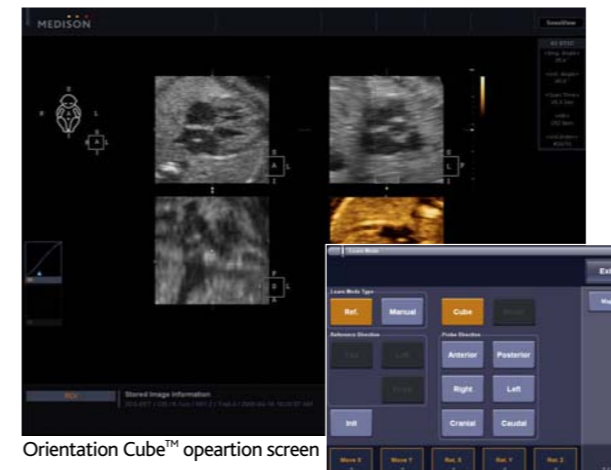
OVIX™ provides specific segmentation of anatomical structures located within the 3D data set.



Fetal spine with OVIX™

## Orientation Cube™

The Orientation Cube™ is an intuitive tool providing confident (right/ left, anterior/ posterior, cephalic/ caudal) orientation within the 3D data set. As planar images are rotated, the Orientation Cube™ automatically provides the appropriate orientation annotation resulting in more confident 3D evaluations.



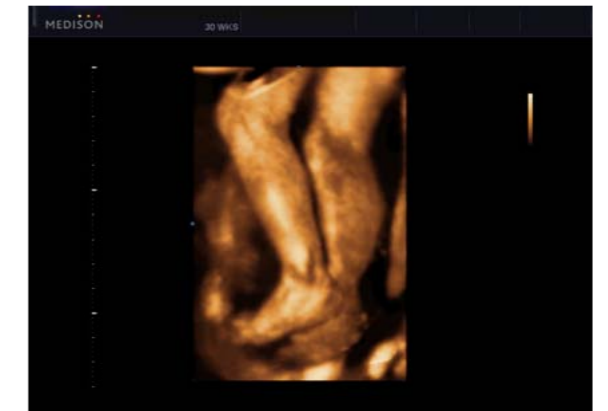
Orientation Cube™ operation screen

## Color STIC™

The dynamic motion of the fetal heart in combination with color Doppler is displayed in real time as multiplanar or rendered images utilizing Color STIC™ technology. Color STIC™ provides greater comprehension of fetal heart hemodynamics, to assist with the evaluation of a variety of cardiac defects.

## VCE™ (Volume Contrast Enhancement)

The quality of volume images is maximized to significantly reduce uncertain areas which appear unclear. Highly detailed images maximize diagnostic confidence.



30 weeks fetal legs in 3D with VCE™

## 3D DMR™ (3D DynamicMR)

Dynamic MR™ enriches the appearance of the displayed 3D image by increasing interface detection, decreasing image pixelation and enhancing contrast resolution.



30 weeks fetal face in 3D DMR™

In addition to the above mentioned technologies, MEDISON also features "Inversion 3D" and "Volume Cine".

**Inversion 3D** provides more in-depth evaluation of vascular and cystic structures creating a cast-like volume of the anatomy of interest.

**Volume Cine** acquires and stores the complete 4D data, allowing for more precise evaluations of volume anatomy especially when performing retrospective 3D examinations.



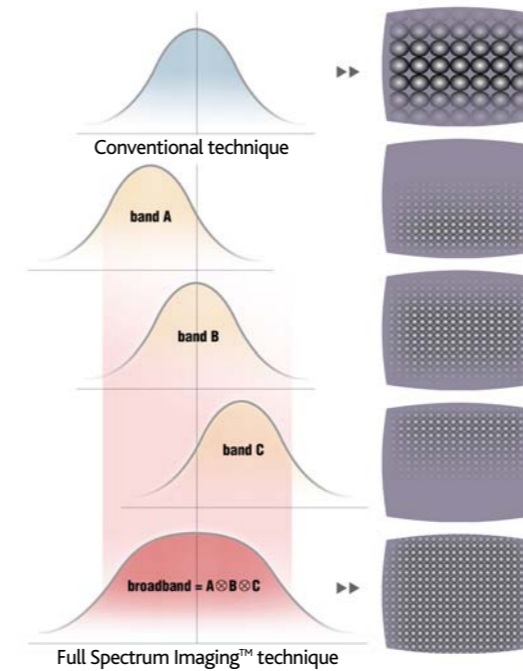
# Extreme 2D Image Quality

Diagnostic confidence is directly dependent upon image quality. Do not accept anything but the best. ACCUVIX V20 is built upon a foundation of high-resolution 2D, 3D and 4D technologies to meet all your ultrasound imaging needs.

Effective utilization of wide dynamic range in combination with sophisticated image processing features including FSI™ (Full Spectrum Imaging), SRF™ (Speckle Reduction Filter), SCI™ (Spatial Compound Imaging) and DynamicMR™ insure consistent high resolution examinations.

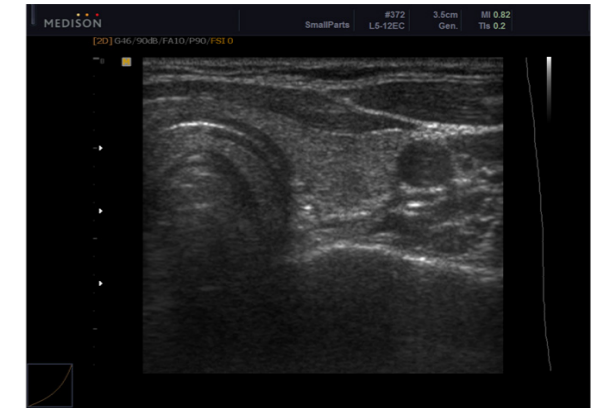
## FSI™ (Full Spectrum Imaging)

Effective utilization of the entire range of probe frequencies allows MEDISON to attain superior image quality throughout the field of view. FSI™ incorporates the penetration capabilities associated with lower frequencies, yet maintains the fine pixel uniformity associated with higher frequencies to deliver consistent high quality images on even the most challenging of patients.



## SRF™ (Speckle Reduction Filter)

Utilizing sophisticated digital filtering technologies, SRF™ enhances image quality by reducing and or eliminating the appearance of speckle echoes from the displayed ultrasound image. The degree of speckle reduction implemented is user-selectable.



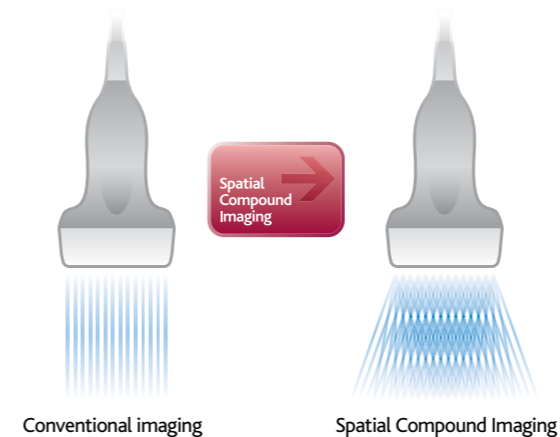
Thyroid in conventional 2D image



Thyroid in 2D image with SRF™

## SCI™ (Spatial Compound Imaging)

Traditionally, ultrasound images are created utilizing parallel scan lines. SCI™ on the other hand, incorporates a more sophisticated method, compounding a wide variety of received scan angles to create an image with enhanced contrast resolution and decrease speckle artifact.



## DynamicMR™

Designed to dramatically enrich grayscale resolution, Dynamic MR™ enhances border detection and contrast resolution, while decreasing speckle echoes. Dynamic MR™ is excellent when evaluating detailed obstetrical, pelvic and or abdominal anatomy.



Thyroid Mass with DMR™



**Optimized System Architecture**

17 inch LCD monitor | 10.4 inch touch screen panel |  
 Post measurement & processing | Integrated DVD-RW |  
 250GB HDD (external HDD backup) | DICOM SR

# Simple and Optimized Workflow

The ergonomic design of ACCUVIX V20 targets form and function. The high resolution flat screen monitor with articulated arm provides the optimal environment of comfort and functionality when performing the ultrasound examination.

The simplified console design boasts a large 10.4 LCD intuitive touch panel for efficient system interaction allowing the user to effortlessly navigate through software functions with ease.



Articulated monitor arm

**Full Custom Measurement**

The presentation of the measurement parameters can be determined by the user. The ability to freely rearrange the order of displayed measurement parameters significantly increases efficiency.

**2D QuickScan™: Auto Image Optimization**

Advanced recognition software allows the ACCUVIX V20 to automatically optimize the displayed grayscale image with the simple push of a button. QuickScan™ delivers optimal image quality while decreasing the need for excessive parameter adjustments.

**Doppler QuickScan™: Auto Doppler Optimization**

Doppler QuickScan™ automatically adjusts the baseline and scale of the Doppler spectrum for more efficient Doppler interaction.

**Software-Based Technology**

ACCUVIX V20 is designed to grow with you and your practice. Based on a revolutionary software platform, ACCUVIX V20 delivers maximum value with fast operation speed, effortless upgradeability and easy maintenance.



Rear handle

4-wheel swivel

Rotating control panel

Front handle



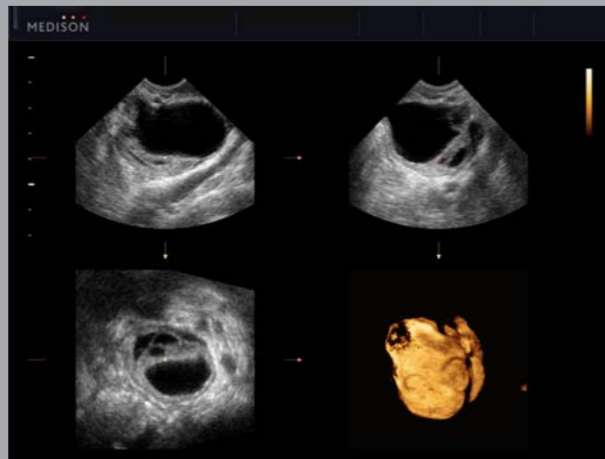
29 weeks fetal face in 3D



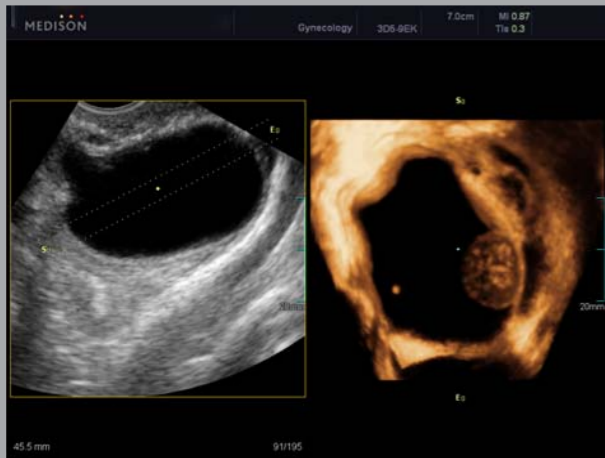
Umbilical cord with PW Doppler



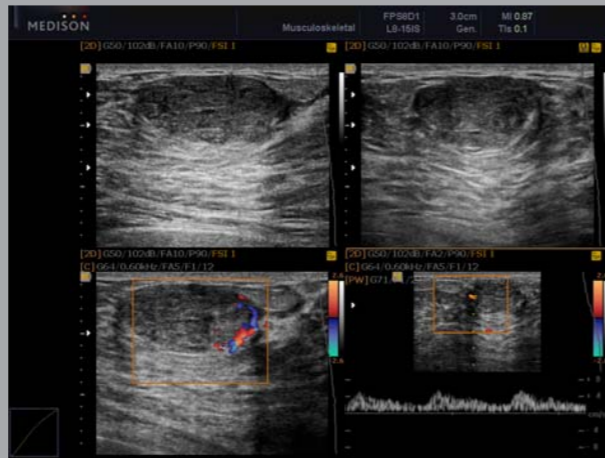
Fetal brain with Multi-Slice View™



Ovarian cyst with Inversion 3D



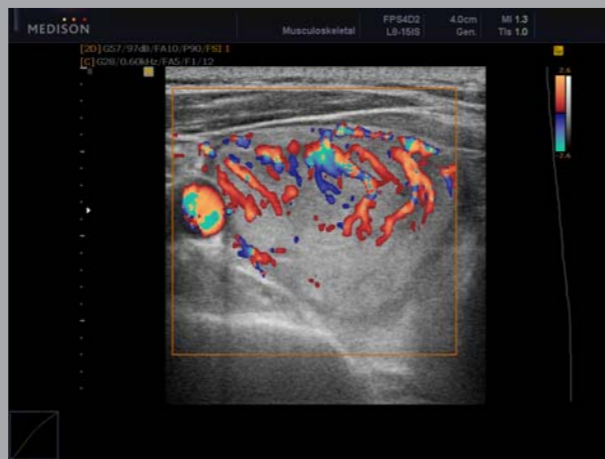
Ovarian mass (malignant) with OVIX™



Breast mass in quadrant view



Aortic arch in 2D



Thyroid mass with color Doppler

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