

**PHILIPS**

Ultrasound

Affiniti

It understands  
your everyday

Philips Affiniti general imaging ultrasound systems

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# You bring your best every day

Each day, you strive to offer the  
highest level of care to your patients.





# The challenges you face

From a changing patient population to the need to maximize resources, the challenges can be considerable.

- A wide range of diagnostic needs
- Growing number of difficult-to-scan patients
- The importance of efficient workflow
- The need for reliable equipment
- Budget constraints that make affordability a key consideration

Philips Affiniti helps you overcome these daily challenges so you can provide the best possible care for your patients every day. Versatile, affordable, easy to use, precise and built to last, Affiniti is the choice of clinicians worldwide.

Affiniti is built on the latest Microsoft Windows 10 OS for system performance, data security and future support.

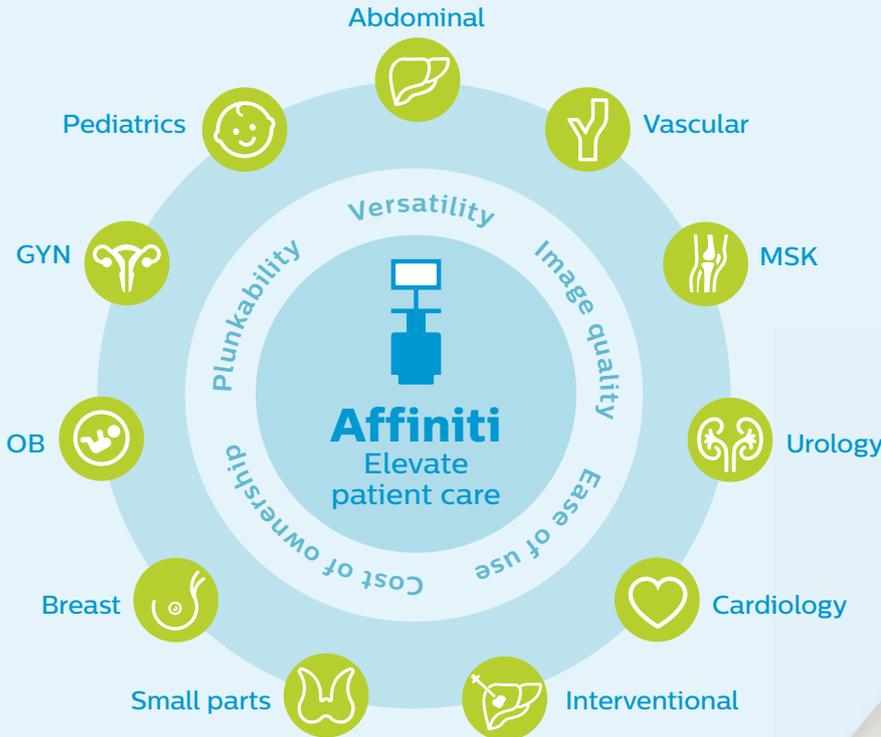


# The universal platform adapts to YOU

Affiniti is an ultrasound system that works hard for you every day, and in so many ways.

**Exceptional quality**

Advanced capabilities and a flexible configuration mean that Affiniti can be customized for a wide range of exam types, providing exceptional image quality across all clinical segments.



## Elevated vascular imaging with the L12-3ERGO transducer

- Ergonomic and lightweight
- Superb vascular imaging for carotid and upper and lower arterial and venous exams
- Supports advanced MicroFlow Imaging for vascular applications
- XRES Pro next-generation image processing for enhanced border definition and exceptional plaque conspicuity



# Superb clinical versatility

Affiniti supports a wide range of small, lightweight transducers that can be shared across Philips EPIQ, Sparq and CX50 ultrasound systems.

No matter what your day requires

Versatility for the following exams

- Abdominal
- Obstetrical
- Fetal echo
- Cerebrovascular
- Peripheral vascular
- Abdominal vascular
- Temporal TCD
- Gynecological and fertility
- Small parts and superficial
- Musculoskeletal
- Pediatric general imaging



Affiniti supports a wide range of Philips transducers, including the C5-1, C9-2, eL18-4, V9-2, mC7-2, S5-1, C10-3v, C6-2, L18-5, L12-5, L12-3, L12-3ERGO, L12-4, L15-7io, S4-2, C9-4v and VL13-5.

# Quick confident diagnoses

Affiniti offers a powerful combination of performance and workflow advances to enhance diagnostic confidence.

## The power of PureWave

With outstanding Philips image quality, one transducer can provide detail resolution and scanning confidence across patients.

### Broadband quality

Philips transducers offer great image quality and detailed resolution at an attractive cost.



## Tissue-specific presets (TSPs) optimize exams

The combination of transducer optimization for specific exams along with Affiniti precision beamforming provides excellent image quality with little or no need for image adjustment. TSPs automatically adjust over 7,500 parameters to optimize the transducer for the specific exam type.

## Robust and reproducible quantification

Affiniti offers all the capabilities needed for day-to-day applications, plus advanced features and automation that enhance exam efficiency and simplify workflow.

- Elastography, contrast-enhanced ultrasound (CEUS) and MicroFlow Imaging (MFI)
- Anatomical Intelligence for Breast (AI Breast)
- Image fusion and navigation with Auto Registration
- Auto Doppler, AutoSCAN and SmartExam



# Overcoming the TDP challenge

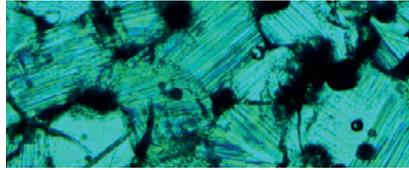
PureWave is the answer to imaging the technically difficult patient (TDP). Affiniti delivers PureWave imaging across all major clinical segments.



### Increased penetration

PureWave transducers are designed to increase penetration in TDPs so that one transducer can provide diagnostic confidence on patients who are technically difficult as well as for those who are easy.

Excellent detail resolution and improved Doppler sensitivity are the result of the virtually perfect uniformity of PureWave crystals, which have greater bandwidth and twice the efficiency of conventional ceramic materials.



Conventional PZT (x800)



PureWave crystal (x800)

## PureWave

is one of the biggest breakthroughs in transducer technology in over 40 years

# 85%

more efficient than conventional PZT materials

## Superb

penetration and image quality

## PureWave transducers

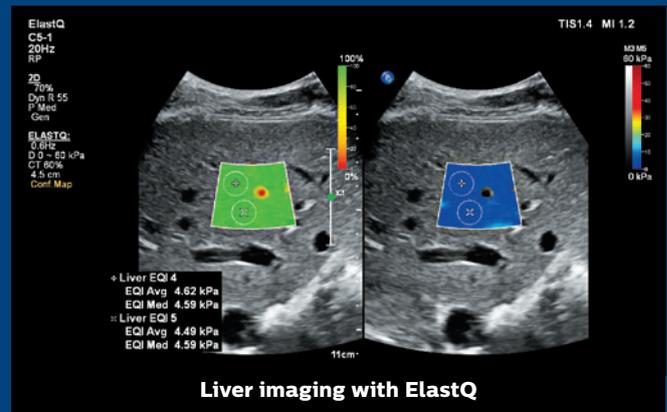
Abdominal and OB exams	C5-1, V9-2, C9-2
Cardiology and transcranial applications	S5-1
Early obstetrical and gynecological exams	C10-3v
Diverse range of clinical applications including breast, MSK, small parts, bowel, vascular, pediatrics and OB	eL18-4

# Workflow meets WOW

Affiniti addresses the everyday need to scan quickly and deliver results efficiently, while incorporating the innovations that make Philips ultrasound the choice of those who demand quality images and proven clinical applications.

## Elastography to reveal more definitive information on tissue stiffness

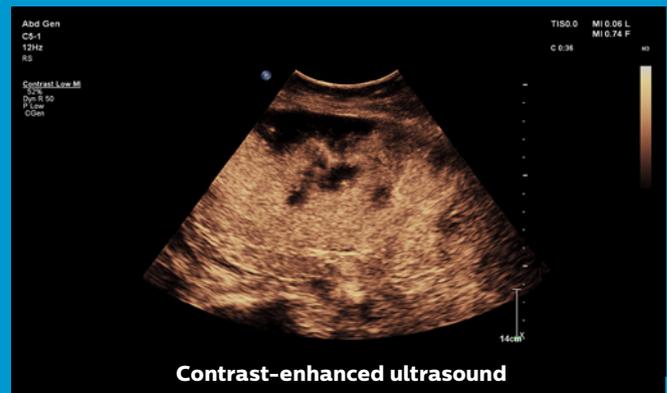
Affiniti supports both strain and shear wave imaging methods of elastography. Highly sensitive strain imaging requires no external compression and can be used to rapidly assess relative tissue stiffness values across a variety of applications, including small parts, breast and gynecology. ElastQ Imaging methods of shear wave elastography use a unique pulsing scheme to generate and detect the propagation speed of shear waves, providing a quantitative display and measurement of tissue stiffness. ElastQ Imaging also provides a confidence map display to assist you in obtaining measurements from areas with the highest shear wave quality.



Liver imaging with ElastQ

## CEUS for dynamic organ and tumor assessment in real time

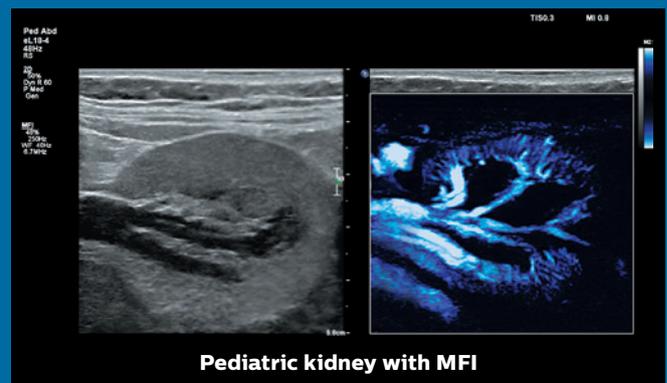
Easily add CEUS to nearly any exam. Affiniti provides immediate optimization of CEUS studies and exceptional performance across multiple agents and applications, which allows for dynamic assessment of organ and tumor perfusion in real time.



Contrast-enhanced ultrasound

## MFI offers remarkable sensitivity and detail in assessing blood flow

Detect slow and weak blood flow anatomy in tissue with MFI, which overcomes many of the barriers associated with conventional methods to detect small vessel blood flow with high resolution and minimal artifacts.



Pediatric kidney with MFI



# Enhance the experience

Affiniti has automation features that reduce repetitive button pushes and steps, leading to enhanced workflow.

#### **Automation tools save time**

Less time on the system means more time to focus on your patient.

- **Real-time iSCAN (AutoSCAN):** automatically and continuously optimizes gain and TGC.
- **Auto Doppler for vascular imaging:** features automated color region of interest positioning and sample volume placement. Takes ten steps from a conventional exam to three steps, providing fewer button pushes and reduced exam time.
- **SmartExam protocols:** system-guided SmartExam protocols facilitate exams with an onscreen menu guiding you through required views and modes while automatically entering annotations and prompting for measurements. SmartExam protocols help you build a report quickly, alert to missed views and reduce overall keystrokes and exam time.

# Performance you can see

Abd Vasc  
C9-2  
31Hz  
RS



Liver

TISO.6 MI 1.0



Abd Vasc  
C9-2  
19Hz

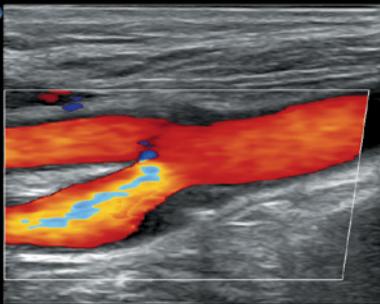


Celiac axis arterial flow

TISO.4 MI 1.2

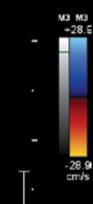


Vasc Carotid  
L12-3  
20Hz



Carotid bifurcation

TISO.2 MI 1.2



Abd Renal  
C6-1  
74Hz  
RS



Liver and kidney

TISO.4 MI 1.3



Abd Vasc  
C9-2  
60Hz  
RS



Abdominal aorta

TISO.5 MI 1.1



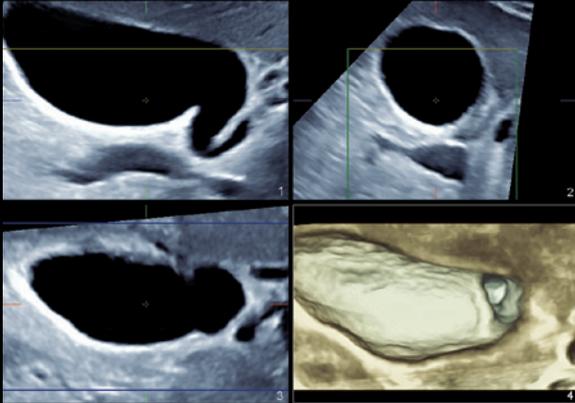
OB Gen  
V6-2  
3D



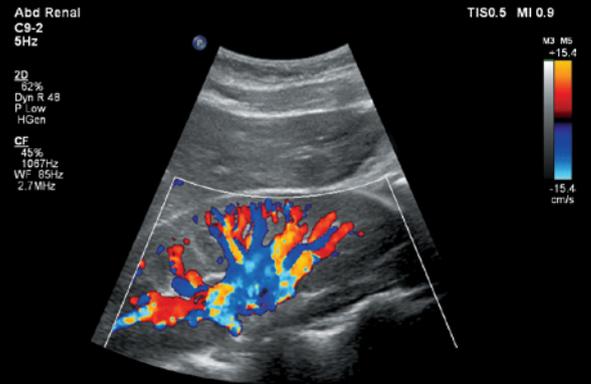
3D baby face with TrueVue

TIBO.1 MI 0.7

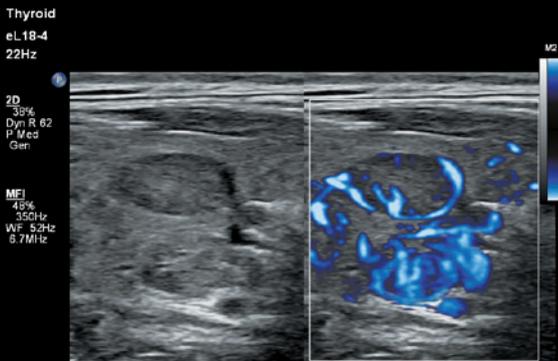




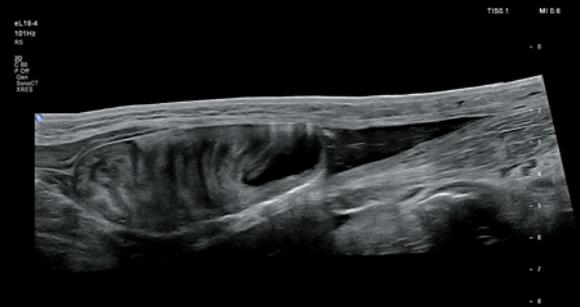
Freehand sweep volume of the gallbladder



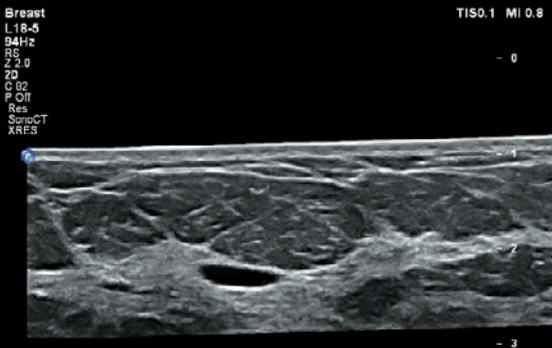
Kidney color flow Doppler



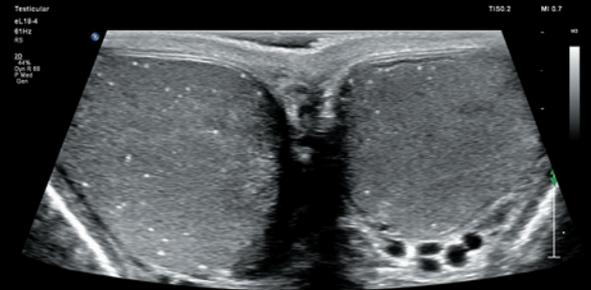
Thyroid MFI



Herniated bowel panoramic imaging



Breast cyst panoramic imaging



Bilateral testicles



# Quantification that keeps you ahead

A wide variety of sophisticated Q-Apps quantify ultrasound image information.

## Q-App quantification applications

### General Imaging Q-Apps

- Intima Media Thickness (IMT)
- General Imaging 3D Quantification (GI 3DQ)
- Region of Interest (ROI)
- MicroVascular Imaging (MVI)
- Vascular Plaque Quantification (VPQ)

### Cardiology Q-Apps

- Intima Media Thickness (IMT)
- Region of Interest (ROI)
- Strain Quantification (SQ)
- Automated Cardiac 2D Quantification<sup>A.I.</sup> (a2DQ<sup>A.I.</sup>)  
and a2DQ<sup>A.I.</sup> LA
- Automated Cardiac Motion Quantification<sup>A.I.</sup> (aCMQ<sup>A.I.</sup>)
- Mitral Valve Navigator<sup>A.I.</sup> (MVN<sup>A.I.</sup>)

# Powerful multimodality fusion capabilities

## Image fusion\* and navigation

Image fusion combines the inherent advantages of multimodality imaging directly on the ultrasound system using electromagnetic tracking, historical CT/MR/PET and live ultrasound and real-time position of the patient, so the clinician has access to a powerful diagnostic tool while reducing radiation burden and maximizing throughput in the department.

## Auto Registration – image fusion, simplified

Affiniti's exclusive Anatomical Intelligence Ultrasound (AIUS) comes to image fusion with automated registration with live ultrasound. Unique anatomical information within cross-sectional image volumes is analyzed and automatically fused with the ultrasound structures, allowing the user to achieve image fusion within seconds – in 1/10 the standard alignment time. A complementary technique to diagnostic CEUS or biopsies and ablations, image fusion with AIUS is fast and simple, allowing you to focus less on setup and more on the procedure ahead.

Conventional ultrasound

The time it takes:  
**10-15 minutes**



Anatomical Intelligence

The time it takes:  
**< 1 minute**

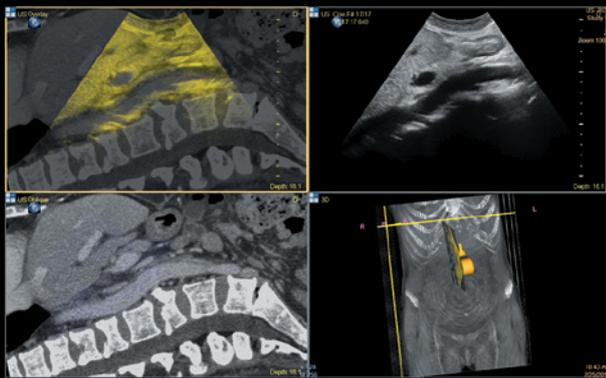
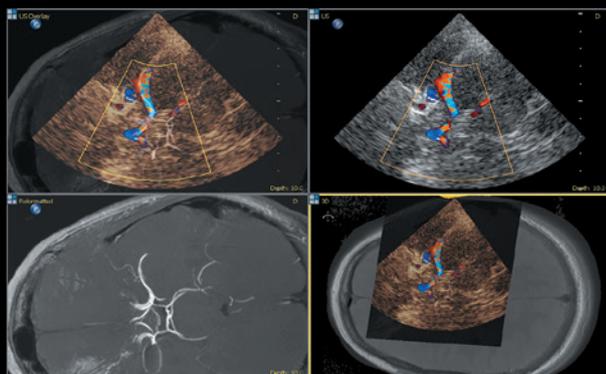


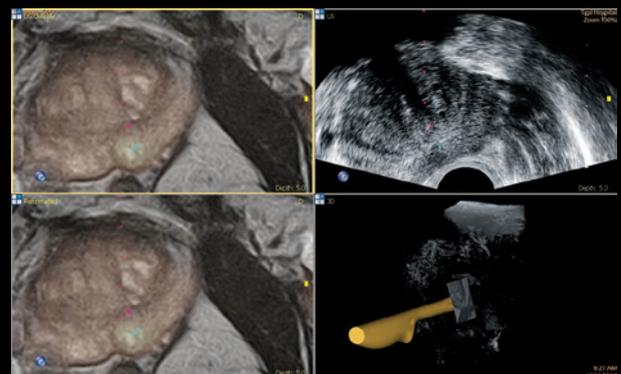
Image fusion of liver and aorta



Image fusion of liver and kidney



Transcranial image fusion



Prostate image fusion

\* Image fusion on Affiniti is not commercially available in North America.

# Easy workflow for integrated breast exams

Facilitate breast screening exams while preserving superb image quality for full diagnostic studies.

## **Anatomical Intelligence for Breast (AI Breast) for enhanced screening and diagnostic workflow**

An integrated solution for whole breast ultrasound, the AI Breast feature is powerful software that utilizes the eL18-4 transducer with integrated electromagnetic tracking coils in conjunction with a specially designed mattress and table-top field generator to perform breast screening exams.

AI Breast offers streamlined workflow and allows visual mapping of screened anatomy, documenting full coverage of the breast during the acquisition phase. Images are stored while performing sweeps to allow review on the system. During acquisition, key images can be bookmarked for quick review. Images can be auto-annotated and quick orthogonal views of anatomy can be retrieved.

Without the need for additional obtrusive hardware, patient comfort is maintained while allowing the ultrasound scan room to be utilized for a full range of examinations, allowing maximum throughput with confidence.



AI Breast visual mapping and auto annotate



AI Breast with orthogonal view





# Advances in Ob/Gyn imaging

Trust is essential with a high-impact diagnosis. Advanced Philips tools enhance diagnostic confidence to bring you closer to your patients.

#### More information earlier

Philips solutions are designed to give your patients peace of mind by giving you more information earlier in pregnancy and making it easy to make a confident diagnosis.

#### TrueVue with TouchVue interface

This innovative approach lets you quickly visualize a wide variety of planes of section within 3D volumes.

#### FlexVue with orthogonal view

FlexVue with orthogonal view simultaneously displays the entire structure in two views, making even curved anatomical structures easy to evaluate in a wide variety of orthogonal planes of section. Easy visualization of technically difficult anatomical views from 3D volumes is essential for diagnosis of Ob/Gyn pathology.

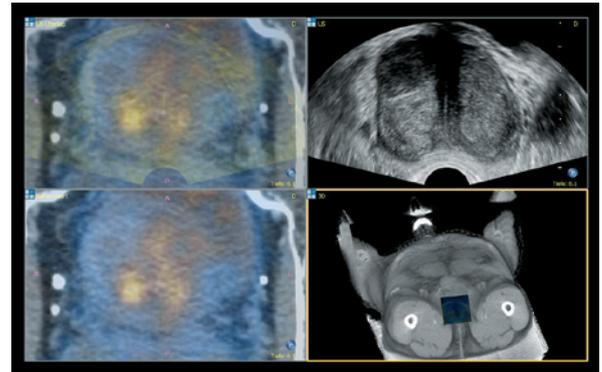


# At the leading edge

## PercuNav prostate fusion

It takes leading-edge technologies to assist your efforts in detecting and treating prevalent diseases such as prostate cancer, which is, in men, the fifth leading cause of death from cancer.<sup>3</sup>

Leverage the high spatial resolution of MR imaging for targeted prostate biopsies under MR:US fusion. Studies performed using Philips fusion have shown that MR:US fusion may aid in the detection of higher risk prostate disease compared to standard transrectal ultrasound biopsy.<sup>4</sup>



Prostate fusion MRI and ultrasound



# Choose the Affiniti system that's right for you

Features	Affiniti 70	Affiniti 50	Affiniti 30
<b>xMATRIX (Live 3D, Live xPlane)</b>			
X7-2t transducer	All modes	2D only	2D only
<b>PureWave</b>			
<b>Advanced features</b>			
Fusion and navigation with Auto Registration	•		
Anatomical Intelligence for Breast (AI Breast)	•		
Contrast-enhanced ultrasound (CEUS)	•	•	•
Strain elastography	•	•	•
ElastQ on C5-1 transducer	•		
ElastPQ	•		
MicroFlow Imaging	•	•	
TrueVue Pro	•		
TrueVue with TouchVue	•	•	
TrueVue Essential			•
FlexVue 2.0	•	•	
PercuNav	•		
aReveal <sup>A.I.</sup>	•	•	•
<b>Efficiency and workflow tools</b>			
3D/4D	•	•	•
3D presets	•	•	•
Auto Doppler	•	•	•
SmartExam	•	•	•
AutoSCAN	•	•	•
aBiometry Assist <sup>A.I.</sup>	•	•	•
MaxVue	•	•	•
<b>Anatomical Intelligence Ultrasound (AIUS)</b>			
MVN <sup>A.I.</sup>	•		
aCMQ <sup>A.I.</sup>	•	•	
a2DQ <sup>A.I.</sup>	•	•	
a2DQ LA <sup>A.I.</sup>	•	•	

# A smart investment

Built to withstand the rigors of daily use, Affiniti offers low operating costs and is backed by Philips support and value-added services. The Affiniti system has a low total cost of ownership, making it a smart investment.

## Enhance uptime

- Modular design for enhanced reliability and rapid repair
- Philips remote services\* monitoring, which corrects issues using a standard Internet connection, reducing the need for service calls
- Access to our award-winning service organization

## Responsive relationships

The value of a Philips ultrasound system extends far beyond technology. With every Affiniti system, you get access to our award-winning service organization, our competitive financing, and educational programs that help you get the most out of your system.

Affiniti offers a defense-in-depth strategy, implementing a suite of security features designed to help clinical IT professionals and healthcare facilities provide additional patient data privacy and virus protection, as well as protection from unauthorized access via the ultrasound systems on hospital networks.



### Exceptional serviceability

The system features a superb modular design for rapid repair.

Affiniti consumes nearly

**40%**  
less energy

than its predecessor.\*\*

It consumes less energy than a toaster, and may help you save on energy and cooling costs.



Support request button for immediate access to Philips support.

\* Not all services available in all geographies; contact your Philips representative for more information. May require service contract.

\*\* HD15

# Count on us as your patients count on you

The value of a Philips ultrasound system extends far beyond technology. With every Affiniti system, you get access to our award-winning service organization,\* competitive financing, and educational tools that help you get the most out of your system.\*\*

## Always there, always on

We work as one with your team to keep your Affiniti system running smoothly.

### Remote service capabilities maximize efficiency

Easy, rapid technical and clinical support through remote desktop enables a virtual visit with a Philips expert.

### Remote software distribution boosts performance over the entire system lifecycle

Remote software distribution provides a simple, convenient and safe process to seamlessly receive updates at a time that suits you, keeping your system at peak performance now and in the future.

### Proactive monitoring solutions maximize uptime

Philips proactive monitoring increases system availability by predicting potential system disruptions and proactively acting on them, letting you focus on what is most important – your patients.

### Immediate support request at your fingertips

The support request button allows you to enter a request directly from the control panel, for a fast and convenient communication mechanism with Philips experts without leaving your patient, minimizing workflow interruption.

### On-cart transducer test provides confidence in your transducer quality

On-cart transducer test provides a non-phantom method to test Affiniti transducers at any time, giving you confidence in your diagnostic information.

## Sharing risk, increasing the return on your investment

Partner with us to maximize utilization and uptime of your Affiniti system.

### Utilization reports for confident decision-making

Data intelligence tools can help you make informed decisions to improve workflow, deliver quality patient care, and decrease the total cost of ownership. The on-board utilization tool provides individual transducer usage data and the ability to sort by exam type.

## Understanding your needs, designed for you

Our flexible RightFit service agreements, education offerings and innovative financing solutions can be adapted to meet your needs and strategic priorities.

- **Technology Maximizer Program:** helps keep your system performing at its peak by continuously providing the latest software from Philips at a fraction of the cost of the same upgrades purchased individually over time.
- **Xtend Coverage:** lets you choose additional service coverage for your ultrasound equipment at the time of purchase to more easily calculate your total cost of ownership.
- **Clinical education solutions:** comprehensive, clinically relevant courses, programs, and learning paths designed to help you improve operational efficiency and enhance patient care.

## ISSL technology

This industry-standard protocol meets global privacy standards and provides a safe and secure connection to the Philips remote services network using your existing Internet access point.



\* Philips is rated number one in overall service performance for ultrasound for 26 consecutive years in the annual IMV ServiceTrak survey in the USA.  
\*\* Optional. Not all services available in all geographies; contact your Philips representative for more information. May require service contract.



1. NYCVA Auto Doppler Workflow Study, December 5, 2011.
2. Drose J. Saving time while increasing revenue. University of Colorado Hospital. April 2007.
3. World Health Organization, International Agency for Research on Cancer Globocan, 2012.
4. Pinto PA, et al. Journal of Urology. 2011;186:1281-1285.

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