

**PHILIPS**

Ultrasound

eL18-4 PureWave  
linear array

# Ultra-broadband for **ultimate ultrasound**

The ultimate ultrasound solution  
for **small parts assessment**

As a leader in transducer innovation – including powerful technologies such as PureWave crystal and xMATRIX array – we understand that you look to us to see where ultrasound is going as it becomes ever more valuable in helping you deliver exceptional patient care. Philips breakthroughs have shaped expectations of clinical performance and continue to both drive new applications and redefine current practices for you and your patients.



The Philips eL18-4 PureWave linear array transducer is our first high-performance transducer to offer ultra-broadband PureWave crystal technology and electronic elevation focusing.

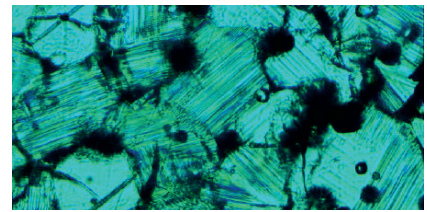
# Ultra-broadband for **ultra performance**

The Philips eL18-4 PureWave linear array transducer features ultra-broadband PureWave crystal technology and incorporates a multi-row array configuration to allow fine-elevation focusing capability. It supports the most advanced features across the Philips EPIQ and Affiniti ultrasound platforms.

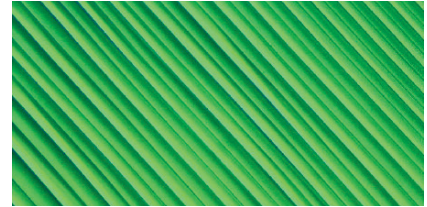
## **Advances amazing** imaging detail and penetration

Philips PureWave crystal technology represents the biggest breakthrough in piezoelectric transducer material in over 40 years. This technology allows a single transducer to achieve superb penetration, even in technically difficult patients, while maintaining excellent detail resolution and flow sensitivity.

The eL18-4 transducer is a further innovation that incorporates both our highest frequency and ultra-broadband acoustic specification in a PureWave array design. This supports a diverse range of clinical applications while delivering extraordinary imaging and depth-of-field performance.



**Conventional PZT (x800)**



**PureWave crystal (x800)**

The pure, uniform crystals of PureWave are 85% more efficient than conventional piezoelectric material, resulting in exceptional performance.



Generates frequencies from 2 to 22 MHz

## **The ultimate solution for small parts**

- Ultra-broadband PureWave crystal
- 50 mm array aperture
- Multi-row array with fine elevation focusing
- Fine pitch with 1,920 active elements
- Advanced full solution elastography support
- MicroFlow Imaging support
- CEUS support
- Precision biopsy support
- Optional integrated EM tracking
- Anatomical Intelligence for Breast (AI Breast) support

## **Delivers** thin-slice elevation focusing capability

The eL18-4 transducer features a multi-row array configuration for full electronic focusing of the elevation plane. Elevation focusing works in conjunction with azimuthal focusing to provide thin-slice imaging for exceptional detail resolution and tissue uniformity from near to far depth of field.



Peering under the lens of the eL18-4 reveals a multi-row array that delivers fine elevation focusing over an extended depth of field



## Reveals **more definitive** information on tissue stiffness

The eL18-4 transducer is designed to support a complete elastography solution. Highly sensitive strain imaging can be used to rapidly assess relative tissue stiffness values across a variety of applications and shear wave elastography utilizes a unique pulsing scheme to generate and detect the propagation speed of shear waves, providing an absolute measure of tissue stiffness. The ability to combine both methods of elastography and deliver excellent imaging performance is an extraordinary clinical accomplishment that helps advance clinical practice.

## Offers **remarkable sensitivity** for assessment of slow and weak blood flow

The eL18-4 supports Philips MicroFlow Imaging, a new proprietary method for blood flow detection providing an innovative approach to assess vascular beds. MicroFlow Imaging overcomes many of the barriers associated with conventional methods to detect small vessel blood flow with high resolution and minimal artifacts. MicroFlow Imaging maintains high frame rate and image quality and applies advanced artifact reduction techniques. 2D image subtraction, blending and side/side display options offer excellent visualization versatility across multiple clinical applications.

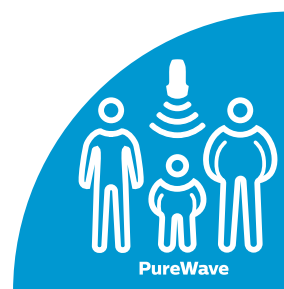


### Superb performance with advanced clinical solutions

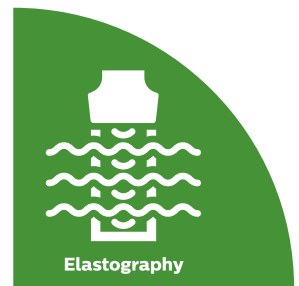
- Thyroid
- Breast
- Testicular
- Musculoskeletal
- Vascular
- Bowel
- Pediatrics
- Obstetrics

## Provides for **more confident** interventional procedures

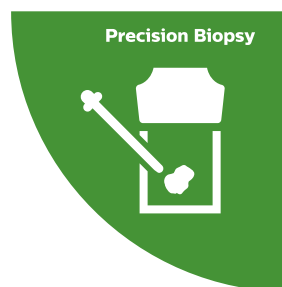
Biopsy procedures, for many practices, are a routine part of an ultrasound examination. Using precision-guided biopsy techniques provides confidence in obtaining tissue targets to reduce multiple needle passes. The eL18-4 is compatible with the Civco Verza Guidance System,\* providing an advanced biopsy guidance system with virtually no dead zone. In addition, needle visualization software optimizes display of needle reflections for enhanced confidence during procedures.



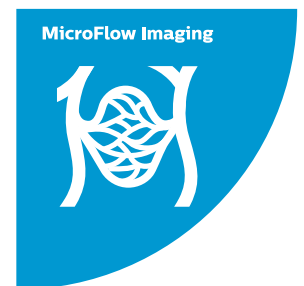
PureWave



Elastography



Precision Biopsy



MicroFlow Imaging

\*Civco Verza Guidance System is a trademark of Civco Medical Solutions.

