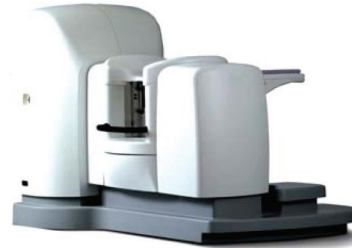


## **Telemedical Breast Imaging System**

**combines Holographic Ultrasound with web-based imaging tool set**

Holographic Ultrasound (HU) was designed to address many of the inherent challenges associated with breast cancer detection and diagnosis. Unlike conventional ultrasound that relies on the reflective properties of sound, HU technology takes advantage of the diffractive properties of sound waves in order to gather boundary and tissue information from soft tissue structures to produce high-contrast, highly detailed images. The first commercial clinical applications are for breast cancer detection, diagnosis and image-guided breast biopsy. HU combines the ultrasound wave with holography to gather real-time information about the examined mammary tissue. The modality relies on a through wave imaging technique that combines a proprietary holographic detector technology with an automated transducer to produce a coherent stream of highly detailed image slices of 5 mm or less to provide continuous streaming of real-time images. The technology is marketed as the HU2400 breast imaging system. Its key feature, especially as it applies to women with dense breast tissue, is the exceptional visual acuity,



the result of high spatial and contrast resolution capabilities as well as an autoscan feature and acoustic zoom. Results correlate well to existing imaging techniques.

When combining the features and functionality of the breast imaging system with the ARIA (AIT Remote Imaging Application) proprietary web-based tele-imaging tool set, the entire breast imaging procedure is streamlined by eliminating the need for post-processing and the need for the physician to be co-located with the patient. ARIA can produce up to 100 3D holograms per second, providing multiplanar

image slices with high contrast resolution, clear tissue characteristics and remarkable detail. Special grid and image marker features assist clinicians in pinpointing areas of concern. The global tele-imaging solution is cost effective, and a built-in remote operator component enables authorised medical professionals to image patients from anywhere in the hospital, at off-site clinics and offices via a secure network connection. Initial results show promise for increased access, productivity and the imaging of dense breast tissue.

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