High Power Ultrasound Phased Arrays For Medical Applications

A high-speed, ultrasonic algorithm to an increasingly popular physical tool with a wide range of applications in medicine. One of the drivers of this development is the development of ultrasound phased arrays, which, although more complex and costly than the traditional single focused ultrasound transducers used in earlier studies, are capable of significantly enhanced dynamic focusing.

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A specific phased array is especially designed for high-power ultrasound transducer. The array is made of 208 single element corresponding to a new generation of high-power transducers developed in collaboration with industrial companies. France.

High power transcranial beam steering for ultrasonic brain...

The emergence of new ways of applying high-power ultrasound is revolutionizing that are based on using nonlinear fields and shock-wave operation modes requires a substantial increase in the power of...

Phased array - Wikipedia

Phased array technology has been utilized in diagnostic ultrasonic for years. Phased arrays can dynamically focus and scan ultrasonic beams without any mechanical movement, and they also correct for wave front distortions induced by the heterogeneous medium through which the wave is propagating.

Lateral mode coupling to reduce the electrical impedance ...

The technology of transcranial ultrasound system delivers the highest frame rate to increase by a factor of four through the simultaneous acquisition of four...