

Arrays



Blatek, Inc. looks forward to serving you and your ultrasonic needs, whether it is medical or industrial, single or multi element, complete transducer assemblies or piezo-composite stacks that you, the customer, can place in your housings. As stated in our company mission statement:

“We work continuously to improve quality and productivity to reduce cost, increase efficiency, and provide better customer service.”

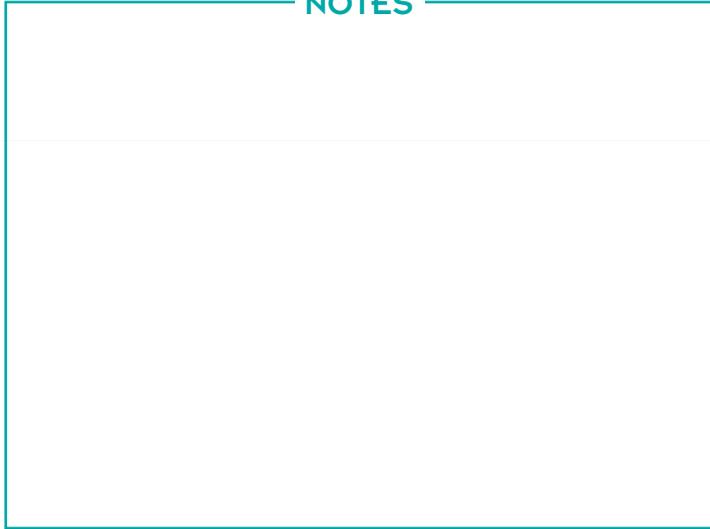
At Blatek, we have developed a line of custom array products that are based on our proven, piezo-composite technology. We offer linear, curved linear, phased, annular, 1.5D and 2D matrix array capabilities.

We pride ourselves in maximized sensitivity and broad bandwidth in an efficient acoustic package that is custom designed for each customer's specific needs.

We manufacture linear arrays that range from 1.0MHz to 15.0MHz with element counts ranging from 16 to 192. Some 2D matrix arrays can commonly approach or exceed an element count of 1000 or more. Acoustic focus can be achieved by either an external convex, cast on lens or via an internal, curved elevation focus of the piezo stack.

Contact Blatek today to discuss your transducer needs directly with a member of our product development team.

NOTES

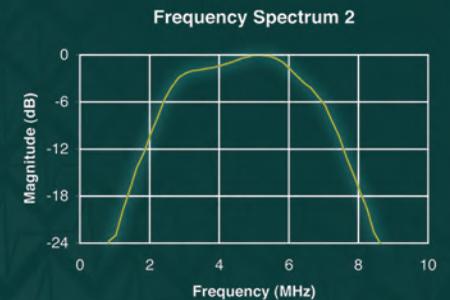
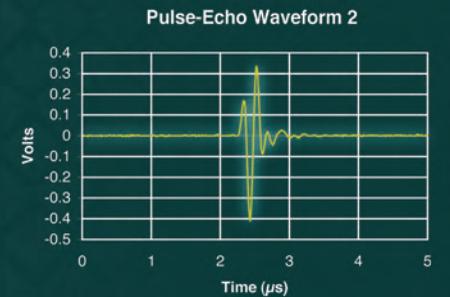
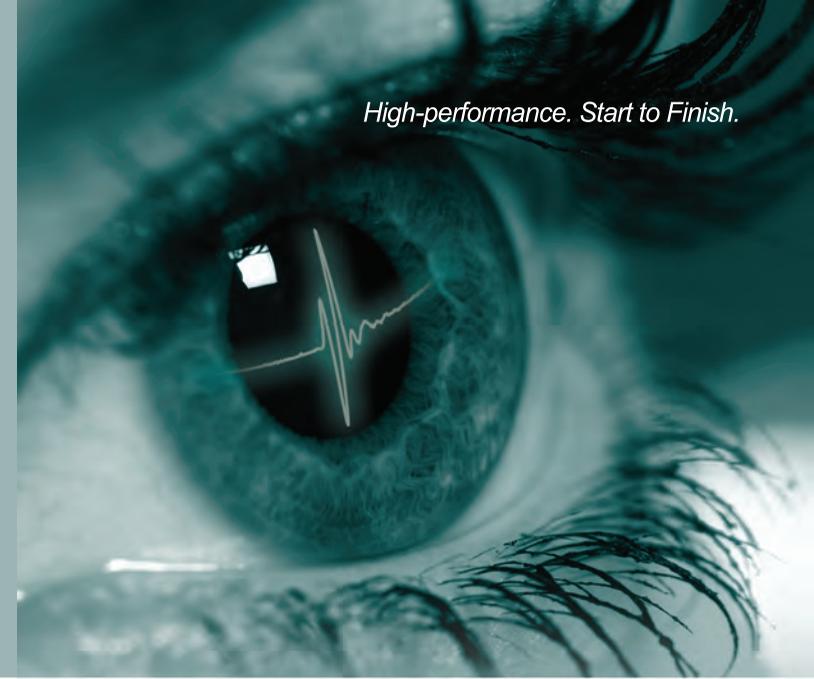


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The largest independent ultrasonic developer and manufacturer of medical transducers from 125KHz to 50MHz.



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Located in the heart of Pennsylvania, Blatek, Inc. was founded in 1978 by Stuart Blacker and prides itself as the largest independent ultrasonic designer and manufacturer of medical, industrial, and NDT transducers from 125KHz up to and including 50MHz. Blatek's close proximity to Penn State's University Park and the Penn State Materials Research Institute keeps us in touch with the largest concentration of advanced material scientists in the world.

Our engineering expertise is wide ranging and includes electrical engineering, material science, mechanical engineering and physics. With this expertise, we have gained extensive experience in the design and fabrication of ultrasonic transducers for both medical and industrial applications.

Blatek has earned world wide respect for the research, development and fabrication of piezo-composites single element transducers and array piezo-composite elements. In the highly competitive medical marketplace, we have worked with customers to solve their most troublesome problems and maximize the performance of new and/or improved piezo-composite elements for a variety of applications. Our current products are 90% piezo-composite designs, with on-going efforts in the experimentation of piezo-composites to further maximize the performance of both existing and new designs.

Pachymetry

Pachymetry is derived from the Greek pachy meaning "thick" and metron indicating "measure". This one dimensional form of A-scan is used to accurately measure thickness of and in the eye. Blatek continues to be a world wide leader in Pachymetry probes. With bio-compatible materials and state-of-the-art ceramics, these time tested designs continue to feed and impress the pachymetry market. Frequencies starting at 10MHz and now 50MHz, provide the necessary resolution needed for precise and accurate measurement. Apertures less than 2mm are typical with potted cables and connectors of the customers' choice.

Doppler

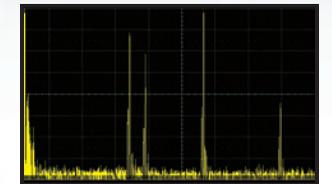
The Doppler Effect is this: if the sound source is moving toward the listening device, the wavelength is compressed and the pitch increased. The opposite is true when that sound source moves away from the listening device. This scenario is used in ultrasonic systems for visualization and measurement of blood flow. Blatek can tackle your CW Doppler needs in your configuration and requirements. Currently, all Doppler transducers at Blatek are constructed with piezo-composite for the best sensitivity possible.

B-Scan

Our B-scan transducers are built to create an ultrasonic two-dimensional, cross section view. B-scans are constructed with the same high grade bio-compatible materials and follow the rules of regimented processes, procedures, and testing. Customers can choose their frequency and ergonomics with Blatek providing the optimum matched piezo-composite stack.

A-Scan

A-scan is one of the most fundamental ultrasonic modalities and is the starting point for more complex methods of ultrasonic imaging and examination.



Acoustics Stacks

Blatek provides custom designed acoustic stacks to place in your own housings. Whether it be single, dual, or multi-element array our engineers provide you with an acoustic "sandwich" that includes ceramic and backing with face layers or a lens that would match to your requirements. Multi-element assemblies can include flex circuitry terminated to a connector of your choice.

Blatek provides premium quality A-scan transducers in a frequency range of 10MHz to 20Mhz made with fine tuned piezo-composite material and a maximized optimization second to none. We offer A-scan probes that have a fixation light in the center of the transducer face for alignment with the visual axis. Every transducer we manufacture is built with documented bills of materials, procedures, and testing that is under ECN control.

Call us to discuss your needs at 814-231-2085 or visit us on the web at www.Blatek.com for more information.

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