



HIFUplex™ Medical

Leverage the HIFUplex-Medical system for your CE mark. Collaborate with Sonic Concepts on a turnkey ultrasound transducer and system to be used in a clinical setting.

A glimpse of the process:

- Start by developing a clinical requirement specification (CRS) around your application which calls out which regulatory standards are to be met
- Develop a marketing requirements specification (MRS)
- Collaborate with Sonic Concepts to develop an engineering requirements specification (ERS) draft in response to the CRS
- Develop a technical and safety hazard analysis and FMEA provided the CRS and ERS draft
- Finalize an ERS in response to the hazard analysis and FMEA
- Design and develop a customized HIFUplex-Medical system following the finalized ERS
- Submit for agency testing
- Iterate and optimize

HIFUplex™ Research

Sonic Concepts develops turnkey ultrasonic transducer and system packages to optimize performance, offer flexibility and user-friendly operation in steering, blurring, splitting or adjusting a single focus. From the transducers radiating surface to the adjustable steering knob on the transducer power output (TPO), Sonic Concepts optimizes all of the electronics in between to sustain efficiency and bandwidth.

Configurations

Single-Focus: Single element/channel system, 200 Watts maximum over 5 MHz bandwidth

Dual-Foci: Dual element/channel system, 100 Watts each (200 Watts total), blur asymmetric focus or split focus either laterally or axially

Blur-Foci: Multi- element/channel system, 10 Watts each or 50 Watts each, blur axisymmetric lateral focus or axial length

Steer-Foci: Multi- element/channel system, 10 Watts each or 50 Watts each, steer focus axially, laterally or within an ellipsoidal volume

Examples

Single-Focus: Single channel 200 Watts TPO-102 & H-101 transducer with fundamental and 3rd harmonic single focusing

Dual-Foci: Dual channel 100 Watts each TPO-105 & H-101 dual element transducer for split beam focusing

Blur-Foci: 4 channel 50 Watts each TPO-105 & H-184 4-element transducer for lateral blurring, while sustaining axial length generated from the coherent driving conditions

Steer-Foci: 128 channel 10 Watts each TPO-300 & H-302 128 element transducer for volume steering