

PRESS RELEASE *for* IMMEDIATE PUBLICATION

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Cavitera™

SONIC CONCEPTS & ONDA ANNOUNCE CAVITERA™:
A UNIFIED RESEARCH PLATFORM FOR MECHANICAL ABLATION & HISTOTRIPSY

Bothell, WA & Sunnyvale, CA – May 1, 2026

Sonic Concepts, Inc., a global leader in therapeutic ultrasound systems, and Onda Corporation, the world's foremost innovator in ultrasound measurement instrumentation, are pleased to announce the launch of **Cavitera™**, a comprehensive research platform engineered specifically for mechanical ablation and histotripsy-focused ultrasound applications.

Cavitera integrates Sonic Concepts' high-performance **F-1 class therapeutic transducers, TPO drive system,** and Onda's **HFO-series fiber-optic hydrophone,** forming a single, turnkey solution for delivering and accurately measuring high-intensity focused ultrasound in cavitation-based therapies. This combined system provides researchers with unmatched capability to generate, characterize, and validate complex mechanical ablation mechanisms with precision and confidence.

A NEW ERA FOR MECHANICAL ABLATION RESEARCH

Mechanical ablation — driven by cavitation, shock interactions, and non-thermal tissue effects — is rapidly emerging as a central focus in next-generation therapeutic ultrasound. With Cavitera, researchers can deliver **precisely controlled acoustic energy**, steer and shape focal patterns, and verify measured output using industry-leading hydrophone metrology.

Cavitera expands upon Sonic Concepts' proven **HIFUplex™** heritage and brings together:

- **F-1 Therapeutic Ultrasound Transducers** (500 kHz, 750 kHz, 1,100 kHz)
- **±20% fractional bandwidth** enabling **400 kHz – 1,300 kHz** operation
- **High-power TPO drive system**
- **Onda HFO-series Fiber-Optic Hydrophone** for validated output characterization

Together, these technologies deliver a research environment with precision, repeatability, and full-field acoustic confidence.



LEADERSHIP PERSPECTIVES

Statements that reflect the strategic vision behind Cavitera:
A system that merges world-class therapy delivery with gold-standard measurement science.



KYLE MORRISON
CEO of Sonic Concepts

“By combining Sonic Concepts’ expertise in therapeutic ultrasound delivery with Onda’s leadership in acoustic measurement, Cavitera offers researchers a unique window into the science of mechanical ablation,” said Kyle Morrison, CEO of Sonic Concepts. *“This collaboration ensures the field has a tool that meets today’s research needs while anticipating tomorrow’s discoveries.”*



PETRIE YAM
COO of Onda Corporation

“This partnership is about enabling research with confidence,” added Petrie Yam, COO of Onda Corporation. *“Our shared customers now have a turnkey solution to accelerate innovation in focused ultrasound therapies. By complementing the Cavitera platform with Onda’s HFO fiber-optic hydrophone, we help ensure the acoustic output is accurate and consistent, giving researchers reliable data they can trust.”*



Engineered for Mechanical Ablation & Histotripsy

[CAVITERA PLATFORM OVERVIEW →](#)

ONE PLATFORM, ALL HISTOTRIPSY MODALITIES

A Unified System Enabling the Full Range of Histotripsy Techniques

Technical Capabilities Supporting the Entire Histotripsy Spectrum

According to the Cavitera technical description, the platform's broadband transducers and short-pulse capability allow researchers to replicate all four primary histotripsy modalities using a single system: intrinsic threshold, shock-scattering, hybrid, and boiling histotripsy.

Intrinsic Threshold Histotripsy (400–900 kHz)

Cavitera supports ultra-short (1–2 cycle) bursts and strong rarefaction (>27 MPa PNP), enabling clean tensile-dominant cavitation. The 500 kHz and 750 kHz systems, each with $\pm 20\%$ bandwidth, give researchers broad flexibility from 400 kHz to 900 kHz for intrinsic-threshold studies.

Shock-Scattering Histotripsy (400–900 kHz)

The same 500 kHz and 750 kHz platforms deliver controlled nonlinear steepening and shock-front formation, providing ideal conditions for shock-scattering research across the 400–900 kHz band.

Hybrid Histotripsy (900–1,300 kHz)

Cavitera's 1,100 kHz system supports hybrid interactions through a combination of tensile and shock mechanisms, enabled by high-frequency operation and tight focal precision.

Boiling Histotripsy (900–1,300 kHz)

Long-duration, high-intensity bursts benefit from >1 MHz operation, making the 1,100 kHz Cavitera platform ideal for vapor-bubble and thermal-mechanical ablation research.

A TURNKEY PLATFORM – FROM DELIVERY TO MEASUREMENT

Cavitera provides:

- Integrated delivery & measurement (therapy + hydrophone)
- High-precision output quantification validated at manufacturing
- Flexible frequency access (400–1,300 kHz)
- High-PNP (>27 MPa) short-pulse capability
- Waveform apodization & compression suppression
- Research-grade spatial steering and focusing

The result is a platform engineered not just for today's histotripsy investigations, but adaptable to future techniques and protocols as the field advances.



ABOUT ONDA CORPORATION

Onda is the global leader in ultrasound measurement instrumentation, providing calibrated hydrophones and metrology tools trusted across medical, industrial, and research applications for over 35 years.



ABOUT SONIC CONCEPTS

Founded in 1986 and based in the Seattle area, Sonic Concepts is a pioneer in therapeutic focused ultrasound transducer development with global recognition for its engineering expertise and deep domain specialization.

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