

Acoustic Intensity Measurement System

AIMS III with Soniq Software

AIMS III is the latest generation hydrophone scanning system that enhances acoustic measurement productivity to map acoustic fields in liquids. User workflow is improved by productivity enhancements that save time in the measurement set-up, scanning, and reporting. These enhancements are based on decades of scanning technology development. Combined with *Soniq* software, the user benefits from real-time plotting, automated FDA reporting, and improved positioning performance. AIMS III continues to be the de facto standard scanning tank for hydrophone-based measurements.

Features:

- Productivity enhancements to measurement set-up, scanning, and reporting
- Compatible with Windows 7 (in addition to Windows XP and 2000)
- Real-time plotting to confirm optimal measurement set-up early
- Automated diagnostic and physiotherapy reporting tables compliant with the latest IEC standards and FDA guidance documents
- Mechanical improvements to advance the positioning accuracy and reliability
- .dll interface for external software control
- SmartSCAN to enable forward and reverse scanning to reduce scanning time
- Angular positioner to accommodate various orientations including “shoot down”
- Over 100 measurement parameters available

Applications:

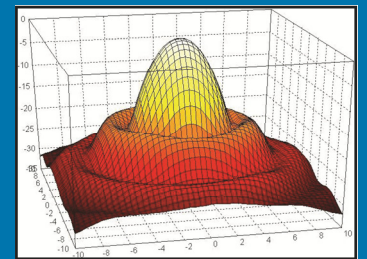
The AIMS III offers the right balance between versatility and easy-to-use operations to meet the most advanced requirements in R&D characterization, regulatory testing, and production QC.

The system is commonly used to characterize and validate transducer designs. Features such as the 5 axis motion, various firing/measuring orientations, and real-time plotting make it the tool of choice to meet the most stringent environments.

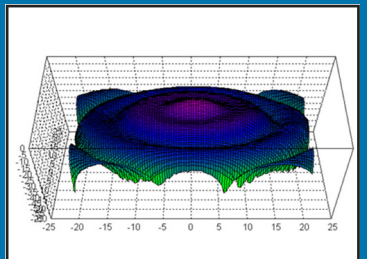
The AIMS platform has also established itself as the premier instrument in the regulatory community. The system allows for automatic reporting compliant with standards for diagnostic equipment (AIUM-NEMA UD-2/UD-3 and IEC 60601-2-37, 61217-1, and 62359) as well as for physiotherapy (US 21 CFR1050.10 and IEC 60601-2-5 and 61689).



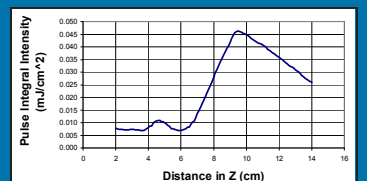
AIMS III System



2D Beam Intensity Plot



2D transaxial planar scan of a 1 MHz physiotherapy probe



1D Intensity Z-Plot

Technical Specifications

Tank:

- Acrylic tank with water circulation connections
- Large viewing area
- Compatible with MECS water conditioner
- Inside Dimensions:
 - Small: 0.73 m X 0.36 m X 0.44 m
 - Large: 0.89 m X 0.51 m X 0.58 m

Motion:

- Positioning repeatability: < 5 μm
- X, Y, Z step size: 5.5 μm
- Rotary step size: 0.025°
- Max speed: 11 mm per second
- Travel range:
 - Small: 610 mm x 360 mm x 380 mm vertical
 - Large: 800 mm x 510 mm x 510 mm vertical
- 3-axis scanning (standard); 2-rotational axis (optional)

Soniq Software:

- Generation of 1, 2, or 3-dimensional acoustic fields
- Acquisition of waveform data for analysis
- Real-time plotting of data acquisition
- Over 100 calculated parameters including Prms, Pii, Ispta, TI, and MI.
- Compliant with AIUM-NEMA and IEC standards.
- Automatic control of MECS water conditioner

Minimum PC Requirements:

- Operating System: Windows 7, XP, and 2000.
- PC: 2.0 GHz Pentium 4, 1 GB RAM, 80 GB HD, CD drive, 3 available USB ports excluding keyboard and mouse
- Optional Software: Microsoft Excel (default report formats in html)

Oscilloscope:

- Support for Agilent 5000/6000 series

Simple Measurement Set-up

[Not to scale]

