



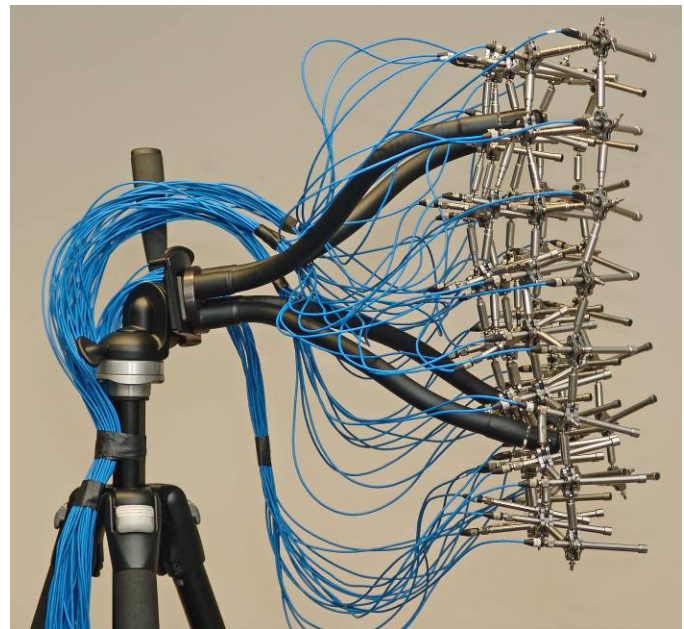
Articulated Microphone Array Fixture

SenSound's powerful software tools allow you to diagnose noise sources faster and more accurately.

SenSound's patented acoustic holography tools offer state of the art acoustic measurements and visualization of acoustic pressure, intensity, and particle velocity in three dimensions. SenSound's suite of products allow users to quickly and accurately pinpoint noise sources for interior or exterior sound fields; link source images to order tracking or changes over time in frequency domain; determine the vibration modes responsible for sound radiation; and, identify the contribution of different noise sources to the overall noise level. SenSound products provide a competitive advantage by delivering the insight into noise generation mechanisms necessary to reduce engineering, warranty and quality control costs, design and build quieter products faster, comply with regulatory requirements and demonstrate that products meet customer specifications in an objective, credible and easy to understand manner.

Articulated Microphone Array Fixture

SenSound's nearfield acoustic holography techniques rely on conformal rather than planar acoustic measurements. By conforming to the test object surface, limitations of planar array technology in terms of measurement flexibility and reconstruction accuracy are avoided. SenSound has developed an articulating conformal microphone array to facilitate the ease of use and reduce setup time for near-field acoustical measurements of real world non-planar test objects. This novel array is made up of microphone clips joined together by articulating ball and socket joints and expandable connectors. This array is completely modular and can be configured in any shape desired by the customer to best fit their application.



The entire array is supported by four flexible arms that are mounted to an adapter disc with a standard tripod screw thread for mounting on any available tripod or customer supplied fixture.

Articulated Array Spacing Flexibility

The microphone clips allow for in and out movement of the microphones, and the articulated joints and extensible connecting rods allow for variable spacing and bending. This combination allows for easy redeployment of the array from very dense measurement spacing to a more open spacing in a wide variety of shapes in just a few minutes, considerably reducing set-up time.

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Articulated Array Specifications

Example Array Weight:

64 microphone clips and connecting expandable rods with flexible arms and tripod adapter disc: 2.8 Kg.

Construction materials:

Microphone clips: Stainless steel or surface treated steel.
 Expandable connecting rods: Stainless steel.
 Set screws for microphones: Nylon tipped stainless steel.
 Screws for holding the joint assembly: Stainless steel.
 Flexible arms: Steel and vinyl, 24 inch standard length with other lengths available.
 Adapter Disc: Anodized Aluminum.

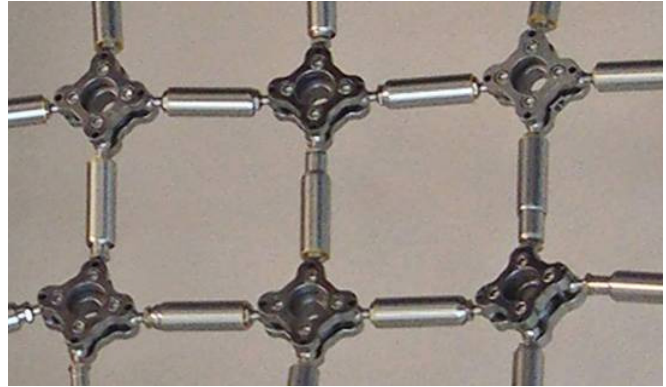
Flexibility and expandability:

Squared array Rod extension (microphone center to center):
 Min.: 5 cm, Max.: 7.5 cm
 Zigzagged array Rod extension (microphone center to center):
 Min. 3.8 cm. across Min.: 2.5 cm diagonal
 Joint angle of rotation front to back: 60 degrees
 Joint angle of rotation side to side: 180 degrees

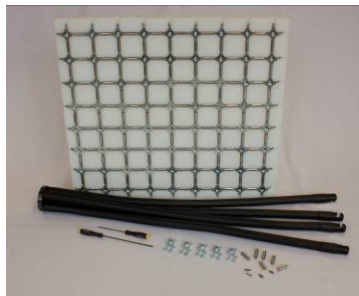
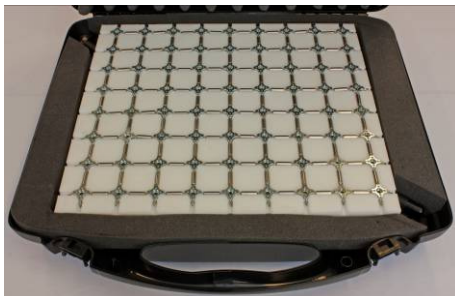
Multiple array kits can be interconnected to form arrays of any matrix size. Parts totals for standard component configurations shown below include 10 extra antennae and ball studs, 5 extra connectors, and spare screws.

Component configurations for Articulated arrays	Standard Array Size			
	8x4	8x6	8x8	8x9
Antenna	62	92	122	137
2-56 X 5/16 SHCS 18-8 SS Hex Screws (100 pk)	2	2	3	3
Nylon Tip Hex Screws (100 pk)	1	1	1	1
4-40 Ball studs (not long)	138	202	266	298
Flexible Arms	4	4	4	4
Plastic Case	1	1	1	1
Bondhus Ball End Hex Driver -- 5/64 5" Blade Length	2	2	2	2
Bondhus Ball End Hex Driver -- 1/16 3.3" Blade Length	2	2	2	2
Steel Microphone Connector (Zinc Plated top & bottom)	37	53	69	77
Plastic Array Clamps	4	4	4	4
Circular base for flexible arms	1	1	1	1
Array Assembly Packaging Tray	1	1	1	1
Custom Foam for packaging case	1	1	1	1

Squared Array



Zigzagged Array



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