

AVEC, INC. MICROPHONE PHASED ARRAY SYSTEMS



AVEC, Inc. has developed a phased array system that eliminates the high cost usually associated with multiple sensor measurements without sacrificing the quality of the results. This system is easy to assemble and operate and can be fully customized to fit your specific needs.

Given the modular design of the system, AVEC can provide a phased array to work with your existing data acquisition and software or a complete turn-key system.

The complete system includes all the components to get you from measurement to reports in no time. With the full system, you receive: microphones, supporting structure, cables, signal conditioning, anti-aliasing filtering, data acquisition, a PC workstation and software for data processing, analysis, and reporting.

AVEC's design also offers the capability of fitting your specific needs with regard to the frequency range of interest and number of channels. Our team of experts will make sure that all your requirements are satisfied.

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Phased Array

The AVEC phased array system is the result of years of experience in array testing and design. Its anodized aluminum and carbon fiber construction makes it compact, lightweight, and easy to transport.

The design was made with ease of assembly in mind. As a result, once the microphones are plugged in, just install the arms using the twist-lock connectors, connect the ribbon cable and you can be acquiring data in less than 15 minutes. Also, a laser at the center of the array helps point the array while using its easy-motion mechanism.

In addition to the standard 63-channel, 1.5m diameter array, customized array systems are available with different configurations and sizes to target specific applications, including hard-walled wind tunnel testing.



Microphones

AVEC microphones provide a flat frequency response up to about 20 kHz. For use in our phased arrays, they are tightly matched for level and phase over the whole frequency range. This results in improved performance and practically eliminates the need for time consuming array calibrations.



Turn-key Solution

Besides the array hardware and microphones, our turn-key solution includes signal conditioning, anti-aliasing, data acquisition (PCI-based) and data processing integrated in a single enclosure. This makes the system easy to transport and to set up, i.e. setting up the system only requires connecting the power and a single data cable from the array to the enclosure.

At customer request, the data acquisition can also be implemented in a separate multi-processor workstation or an easy to transport small form factor computer. The system depicted at the bottom of the page shows our 128-channel system with a dedicated small factor PC for data acquisition and processing.



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Customized Systems

In order to fit our customer needs, AVEC provides customized systems to accommodate almost any type of output (i.e. connector type) to match an existing data acquisition system (see example picture on right).

In this case, the modular electronics enclosure houses the microphones signal conditioning and optional anti-aliasing filters.

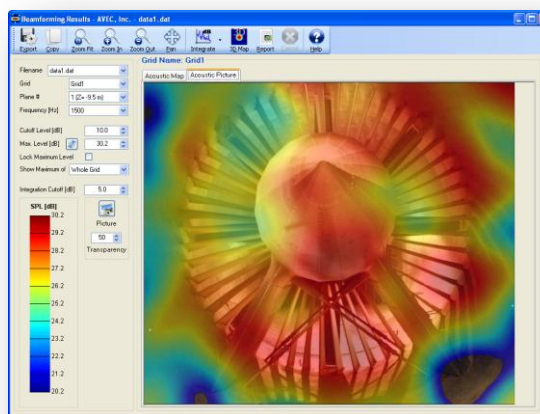


AVEC's Phased Array Software

As a perfect complement to the array system, AVEC has developed a high-end phased array processing software. Its ease of use and unmatched processing speed will increase your productivity while providing you with high quality results. Among its many features, its unique automatic report generation will give you professional looking results in no time, giving you more time to focus on analyzing data.

For more information and a brochure describing AVEC's Phased Array software please visit our products page at:

www.avec-engineering.com/products.html



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