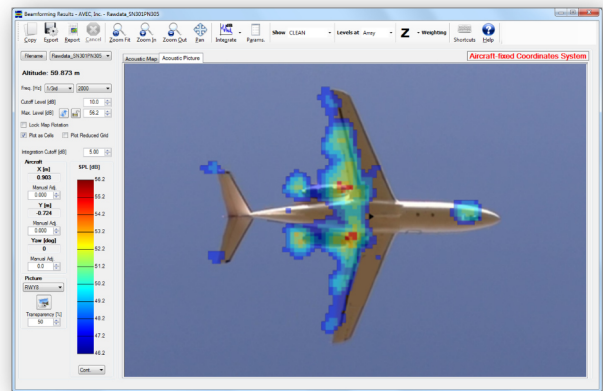
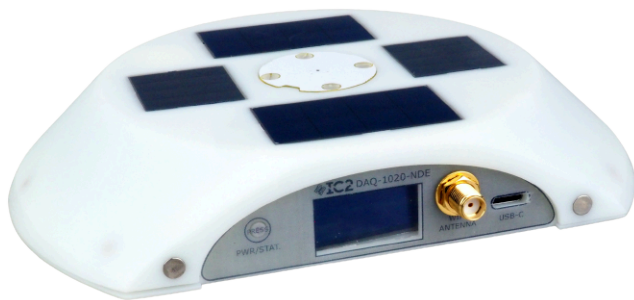


IC2 WirelessArray + AVEC, Inc. Flight Test Software

IC2 and AVEC, Inc. are teaming up to offer a complete acoustic flyover phased array measurement capability, combining IC2's WirelessArray™ and AVEC's Flight Test Software offerings.



WirelessArray

- Wirelessly time synchronized via GPS to maintain simultaneous sampling across the full array.
- Environmentally hardened enclosures protect against the elements during long-term deployments.
- Dedicated acquisition processor and embedded communication and control system.
- Smart power systems that automatically switch between battery, USB-C wall power, and solar power depending on current conditions and configurations.

Time Domain Beamforming Software

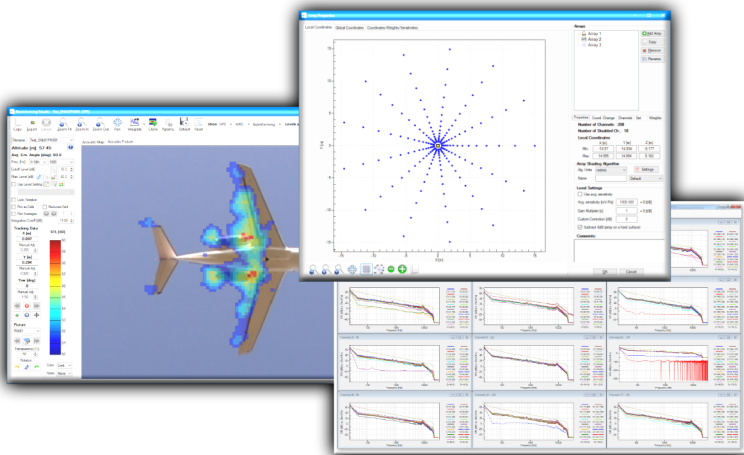
- Complete solution for phased array flight testing, with easy and intuitive operation.
- Multiple features for preliminary analysis to ensure that the end-to-end system is working as expected during the test.
- Multiple aircraft tracking options (GPS, line camera, trigger, manual).
- Advanced beamforming and deconvolution options available, including corrections for layered atmospheric conditions.
- Handle hundreds of files for easy batch processing, visualization, and integration.



WirelessArray + Flight Test Software

From data acquisition to advanced analysis, our software handles all aspects of flight testing.

- Intuitive interface and multi-threaded processing allow for quick setup and analysis, even during flight tests.
- Visualize acoustic maps, integrate results, and estimate EPNL levels with ease.
- Easily export any results to multiple formats, including automatic report generation.
- USB key licensing model allows for hassle-free installation and use on multiple PCs.



Applications

- Flyover phased array measurements
- Advanced time domain beamforming

Benefits

- Order of magnitude faster deployment over wired systems saves time and money.
- Easily expandable and adjustable array size (meters to kilometers) and shape.
- All system components are user-serviceable to ensure reliability during critical testing windows.
- During flight testing, the user can quickly analyze raw data, obtain preliminary acoustic maps, integrate results, and estimate EPNL.
- Acoustic maps (for narrowband or different octave bands) can be visualized as conventional contour plots or overlaid with pictures/drawings of the aircraft.
- Beamforming grid and integrations regions can be easily defined relative to the aircraft.
- Robust software platform ensures seamless operation and data interpretation.

Array design and test support services available. Contact us for details.

WirelessArray is a GPS time-synchronized wireless array of distributed nodes with interchangeable sensor interfaces measuring and communicating high-fidelity data back to a centralized data acquisition center.

The WirelessArray system is composed of four major components:

1. the Wireless Sensing Nodes,
2. the Central Sensing Plate (optional),
3. the Field Data-Collection Architecture, and
4. the Data-Collection Server.



Greatly reduces recurring costs associated with array deployment by eliminating miles of cable runs to individual nodes and removing the need to protect each sensor against impending weather events through its environmentally hardened enclosure.

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The flight test results shown are courtesy of JAXA (Japan Aerospace Exploration Agency), or part of work done and published by NASA Langley Research Center.