

Summary

Cadence Cradle CFD, MSC Nastran, and Actran provide a complete virtual aero-acoustic workflow for air purifier development. By simulating airflow, structural vibration, and radiated noise before prototype build, manufacturers can deliver quieter, higher-performance products while reducing development cost and time-to-market.

Benefits

- Predict airflow and noise performance early in the design stage
- Identify and eliminate fan, turbulence, and structural noise sources
- Reduce physical prototypes and testing iterations
- Optimize fan, filter, duct, and enclosure designs
- Improve product quality and user comfort with quieter operation
- Shorten development cycles and accelerate time-to-market
- Increase engineering confidence through virtual validation before manufacturing.