

AEROSONIC CORP /DE/  
Form 11-K  
June 29, 2010

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 11-K

ANNUAL REPORTS OF EMPLOYEE STOCK  
PURCHASE, SAVINGS AND SIMILAR PLANS  
PURSUANT TO SECTION 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the Fiscal Year Ended December 31, 2009

OR

TRANSITION REPORT PURSUANT TO SECTION 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the Transition Period \_\_\_\_\_ to \_\_\_\_\_

Commission File Number 1-11750

A. Full title of the plan and the address of the plan, if different from that of the issuer named below:

AEROSONIC CORPORATION 401(k) PLAN

B. Name of issuer of the securities held pursuant to the plan and the address of its principal executive office:

Aerosonic Corporation  
1212 North Hercules Avenue  
Clearwater, Florida 33765

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Aerosonic Corporation 401(k) Plan  
Table of Contents

	Page(s)
Reports of Independent Registered Public Accounting Firm	1
Financial Statements:	
Statements of Net Assets Available for Benefits as of December 31, 2009 and 2008	2
Statement of Changes in Net Assets Available for Benefits For the Year Ended December 31, 2009	3
Notes to Financial Statements	4-10
Supplemental Schedules	
Schedule I - Schedule of Assets (Held at End of Year) as of December 31, 2009	11
Schedule II – Schedule of Delinquent Participant Contributions For Year Ended December 31, 2009	12
Signature	13
Exhibits	
23.1 Consent of Kirkland, Russ, Murphy & Tapp, P.A.	14

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Participants and Administrator of the  
Aerosonic Corporation 401(k) Plan:

We have audited the accompanying statements of net assets available for benefits of Aerosonic Corporation 401(k) Plan as of December 31, 2009 and 2008, and the related statement of changes in net assets available for benefits for the year ended December 31, 2009. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Plan has determined that it is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of Aerosonic Corporation 401(k) Plan as of December 31, 2009 and 2008, and the changes in net assets available for benefits for the year ended December 31, 2009, in conformity with accounting principles generally accepted in the United States of America.

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of assets (held at end of year) and schedule of delinquent participant contributions, together referred to as "supplemental schedules," are presented for purpose of additional analysis and are not a required part of the basic financial statements but are supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. These supplemental schedules are the responsibility of the Plan's management. The supplemental schedules have been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, are fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ Kirkland, Russ, Murphy & Tapp, P.A.  
Clearwater, Florida  
June 29, 2010

AEROSONIC CORPORATION  
401(k) PLAN

Statements of Net Assets Available for Benefits  
as of December 31, 2009 and 2008

	2009	2008
Investments, at fair value:		
Aerosonic Corporation common stock	\$ 279,121	\$ 16,738
Registered investment companies	3,008,138	2,576,978
Common collective trusts	688,845	842,375
Participant loans	243,577	190,819
Total investments	4,219,681	3,626,910
Contribution receivable	13,223	