

AEROSONIC CORP /DE/  
Form 11-K  
June 29, 2009  
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**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, 2008

**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**

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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 statement of net assets available for benefits of Aerosonic Corporation 401(k) Plan as of December 31, 2008, and the related statement of changes in net assets available for benefits for the year then ended. 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. The financial statements of Aerosonic Corporation 401(k) Plan as of and for the year ended December 31, 2007 were audited by other auditors whose report dated July 15, 2008, expressed an unqualified opinion on those statements.

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 audit provides 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, 2008, and the changes in net assets available for benefits for the year then ended 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, 2009

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Administrator and Participants

Aerosonic Corporation 401(k) Plan

Clearwater, Florida

We have audited the accompanying statement of net assets available for benefits of the Aerosonic Corporation 401(k) Plan (the Plan ) as of December 31, 2007. This financial statement is the responsibility of the Plan's management. Our responsibility is to express an opinion on this financial statement based on our audit.

We conducted our audit in accordance with the auditing 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. 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 audit provides a reasonable basis for our opinion.

In our opinion, the financial statement referred to above presents fairly, in all material respects, the net assets available for benefits of the Aerosonic Corporation 401(k) Plan as of December 31, 2007, in conformity with U.S. generally accepted accounting principles.

/s/ McGladrey & Pullen, LLP  
Orlando, Florida

July 15, 2008

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**AEROSONIC CORPORATION**

**401(k) PLAN**

**Statements of Net Assets Available for Benefits**

**as of December 31, 2008 and 2007**

|                                                                                               | <b>2008</b>      | <b>2007</b>      |
|-----------------------------------------------------------------------------------------------|------------------|------------------|
| <b>Investments, at fair value:</b>                                                            |                  |                  |
| Aerosonic Corporation common stock                                                            | \$ 16,738        | \$ 105,728       |
| Registered investment companies                                                               | 2,576,978        | 5,534,668        |
| Common collective trusts                                                                      | 842,375          | 869,224          |
| Participant loans                                                                             | 190,819          | 161,435          |
| <br>Total investments                                                                         | <br>3,626,910    | <br>6,671,055    |
| Employer contribution receivable                                                              | 32,046           | 61,575           |
| <br>Net assets available for benefits at fair value                                           | <br>3,658,956    | <br>6,732,630    |
| Adjustment from fair value to contract value for fully benefit responsive investment contract | 38,122           | 0                |
| <br>Net assets available for benefits                                                         | <br>\$ 3,697,078 | <br>\$ 6,732,630 |

The accompanying notes are an integral part of these financial statements.

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**AEROSONIC CORPORATION**

**401(k) PLAN**

**Statement of Changes in Net Assets Available for Benefits**

**For the Year Ended December 31, 2008**

|                                                    |              |
|----------------------------------------------------|--------------|
| <b>Additions to net assets attributed to:</b>      |              |
| Investment income:                                 |              |
| Interest and dividends                             | \$ 106,463   |
| Contributions:                                     |              |
| Employer contributions                             | 136,917      |
| Participant contributions                          | 279,120      |
| Rollover contributions and transfers into the Plan | 21,722       |
| Total contributions                                | 437,759      |
| Total additions                                    | 544,222      |
| <b>Deductions from net assets attributed to:</b>   |              |
| Benefits paid to participants                      | (1,902,420)  |
| Administrative expenses                            | (41,503)     |
| Net depreciation in fair value of investments      | (1,635,851)  |
| Total deductions                                   | (3,579,774)  |
| Net decrease                                       | (3,035,552)  |
| <b>Net assets available for plan benefits:</b>     |              |
| Beginning of year                                  | 6,732,630    |
| End of year                                        | \$ 3,697,078 |

The accompanying notes are an integral part of these financial statements.

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### **Aerosonic Corporation 401(k) Plan**

### **Notes to Financial Statements**

### **December 31, 2008 and 2007**

#### **1. Plan Description**

The following description of the Aerosonic Corporation 401(k) Plan (the **Plan**) provides only general information. Participants of the Plan should refer to the Plan document for a more complete description of the Plan.

#### ***General***

The Plan is a defined contribution plan that covers the eligible employees of Aerosonic Corporation (the **Company**) by allowing them a system of savings and salary deferral and by providing discretionary employer profit sharing contributions.

The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974. ( **ERISA** ). The Plan was established on February 1, 1993, and has been amended from time to time thereafter.

#### ***Eligibility***

Employees become eligible to participate in the Plan beginning on January 1, April 1, July 1, or October 1, immediately following completion of three months of service and attaining age 21.

#### ***Contributions***

An eligible participant may voluntarily contribute, on a pre-tax basis, up to a maximum of 100% of his or her annual eligible compensation (up to the IRS maximum allowable amount) to the Plan. The maximum allowable pre-tax voluntary contribution, as determined under the Internal Revenue Code, was \$15,500 for 2008 and 2007, and an additional catch-up contribution of \$5,000 for participants over age 50. A participant also may roll over to the Plan amounts from individual retirement accounts or distributions from other qualified defined benefit or defined contribution plans.

The Company may also make contributions, in cash or Company common stock, to the Plan. The Company may make a matching contribution, as determined by the Board of Directors annually, of an amount equal to a percentage of a participant's contributions up to a maximum percentage of eligible compensation. For 2008, the Company contributed an amount equal to 100% of a participant's contributions up to 3% of eligible compensation. The total matching contribution made to the Plan amounted to \$136,917 in cash for the year ended December 31, 2008. Effective January 31, 2009, the Company has suspended employer contributions to the Plan indefinitely.

The Company may also make discretionary profit sharing contributions to the Plan, which are allocated to a participant's account based upon the participant's annual compensation. The Company did not make any discretionary profit sharing contributions to the Plan for 2008.

#### ***Participant Accounts***

Each participant's account is credited with the participant's contributions, his or her pro rata share of Company matching and additional discretionary contributions, and an allocation of Plan earnings or losses, including market value adjustments on Plan investments and allocation of Plan expenses. All contributions are held in trust and invested by the Plan's trustee in accordance with the options selected by the participants (i.e. all investments are participant-directed). Participants can choose from a variety of investment options including common collective trusts and registered investment companies. Also, participants have the option to contribute to a fund which purchases Aerosonic Corporation common stock.

Plan earnings (losses) are allocated to a participant's account based on the participant's account balance as a percent of total invested assets in each investment fund. The benefit to which a participant is entitled under the Plan is the benefit that can be provided from the participant's vested account.



**Table of Contents*****Vesting***

Participants are immediately vested in their contributions to the Plan plus actual earnings and losses thereon. Participants become vested in employer matching and additional discretionary contributions (and earnings or losses thereon) according to the following schedule:

| <b>Years of Service</b> | <b>Vesting Percentage</b> |
|-------------------------|---------------------------|
| less than 2             | 0%                        |
| 2 but less than 3       | 33%                       |
| 3 but less than 4       | 67%                       |
| 4 or more               | 100%                      |

Participants become fully vested upon death, disability, attainment of normal retirement age, or upon termination of the Plan.

***Distribution of Participant Accounts***

Distributions of a participant's account are made upon retirement from the Company at age 65, in cases of financial hardship, termination from service with the Company, death, or disability. Participants still employed who have reached the age of 59 1/2 are eligible for one distribution per calendar year from the vested portion of their account. Distributions are made in a single lump-sum payment, in whole shares of Company common stock, or in cash, or partially in Company common stock or partially in cash, as determined by the Plan Administrator and based upon the relative proportion in which the participant's account balance under the Plan consists of Company stock or investments.

The Plan allows participants that are less than age 70 1/2 to defer benefit payments until they cease employment.

***Participants Loans***

Participants may borrow from their fund accounts a minimum of \$1,000 and up to a maximum of the lesser of \$50,000 or 50% of their vested account balance. A participant may not have more than two loans outstanding at any time. Loans, which are collateralized by the balance in the participant's account, bear interest at rates based upon the prime interest rate as published in *The Wall Street Journal* on the first business day of the month when the loan is drawn plus 1%. The loan rate of interest ranged from 4.25% to 9.25% per annum during the 2008 Plan year. All loans are repaid through salary reductions within a period of five years, except loans to acquire the participant's principal residence, for which the term of the loan may be up to ten years. Each loan is documented in the form of a promissory note from the participant and collateralized by this pledge on the participant's account balance.

**2. Summary of Significant Accounting Policies*****Basis of Accounting***

The accompanying financial statements are prepared on the accrual basis of accounting, except for benefits paid, which are recorded when paid, in conformity with accounting principles generally accepted in the United States of America.

***Use of Estimates***

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and changes therein and disclosure of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates.

***Investment Valuation and Income Recognition***

The Plan's investments are stated at fair value. The fair value of registered investment companies is determined based on quoted market prices. Units held in bank common collective trust funds are reported at fair value based on the unit prices quoted by the fund, representing the fair value of the underlying investments. Participant loans are valued at the amount of unpaid principal, which approximates fair value. The value of Aerosonic Corporation common stock is determined using the closing market price from the NYSE Amex at December 31, 2008.



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Wachovia Diversified Stable Asset Fund, a common collective trust, holds investments in fully benefit-responsive investment contracts that are stated at contract value which is equal to the principal balance plus accrued interest. As described in Financial Accounting Standards Board Staff Position FSP AAG INV-1 and SOP 94-4-1, Reporting of Fully Benefit-Responsive Investment Contracts Held by Certain Investment Companies Subject to the AICPA Investment Company Guide and Defined-Contribution Health and Welfare and Pension Plans common collective trusts are required to be reported at fair value. However, contract value is the relevant measurement attribute for that portion of the net assets available for benefits of a defined contribution plan attributable to fully benefit-responsive investment contracts because contract value is the amount participants would receive if they were to initiate a permitted transaction under the terms of the Plan. At December 31, 2008, the fund is recorded at fair value with an adjustment to contract value on the Statement of Net Assets Available for Benefit. The fair value of the investment is not materially different from its contract value for the year ended December 31, 2007.

Interest income is recognized when earned. Dividend income is recorded on the ex-dividend date. Realized gains and losses on investments are recognized upon the sale of the related investments and unrealized appreciation or depreciation is recognized at period end when the carrying values of the related investments are adjusted to their estimated fair market value. Purchases and sales of securities are recorded on a trade-date basis.

Earnings on investments, with the exception of participant loans, are allocated on a pro-rata basis to individual participant accounts based on the type of investment and the ratio of each participant's individual account balance to the aggregate of participant account balances within investment type. The portion of interest included in each loan payment made by a participant is recognized as interest income in the participant's individual account.

***Net Depreciation in Fair Value of Investments***

The Plan presents in the statement of changes in net assets available for benefits, the net depreciation in the fair value of investments, which consists of the realized gains or losses and the unrealized appreciation or depreciation on those investments.

***Risks and Uncertainties***

Investment securities are exposed to various risks, including those involving interest rates, the securities market, and credit conditions. Due to the level of risk associated with certain investment securities, changes in the values of such investment securities may involve declines in value in the near term and in the long term, and such declines could have a material adverse effect upon participants' account balances, and the amounts reported in the statements of net assets available for benefits.

***Payment of Benefits***

The Plan records benefit payments to withdrawing participants when paid. Under the rules for preparation of the Form 5500, the Plan's Form 5500 will reflect an accrual for the amount to be paid to participants who withdrew from the Plan prior to year-end, and who had requested a distribution which was approved but not yet paid at period end, if any. There were no unpaid distributions at December 31, 2008.

***Administrative Expenses***

Investment management service fees are paid directly from the Plan's assets. Other administrative expenses are paid directly by the Plan sponsor and consist primarily of accounting and legal fees.

**3. Investments**

The following presents investments that represent 5% or more of the Plan's net assets available for benefits as of December 31:

|                                       | 2008       | 2007         |
|---------------------------------------|------------|--------------|
| American Funds Growth R3              | \$ 832,173 | \$ 2,118,442 |
| Oakmark Equity & Inc. II              | 557,398    | 1,039,875    |
| DWS Global Opportunities A            | 331,247    | 867,147      |
| Wachovia Div Stable Value             | 762,448    | 838,751      |
| Riversource Diversified Equity Inc. A | 236,075    | 768,179      |

Van Kampen US Mortgage /A

250,588

348,056

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**Table of Contents****4. Net Depreciation in Estimated Fair Value of Investments**

The Plan's investments (including gains and losses on investments bought and sold, as well as those held during the year), decreased in value by \$1,635,851 during the year ended December 31, 2008, as follows:

|                                    |                |
|------------------------------------|----------------|
| Registered investment companies    | \$ (1,546,861) |
| Aerosonic Corporation common stock | (88,990)       |
|                                    | \$ (1,635,851) |

**5. Fair Value Measurements**

In September 2006, the FASB issued Statement of Financial Accounting Standards No. 157, *Fair Value Measurements* ( SFAS 157 ). SFAS 157 defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurement. SFAS 157 also emphasizes that fair value is a market-based measurement, not an entity-specific measurement, and sets out a fair value hierarchy with the highest priority being quoted prices in active markets. Under SFAS 157, fair value measurements are disclosed by level within that hierarchy. The requirements of SFAS 157 are effective for fiscal years beginning after November 15, 2007. The adoption of SFAS 157 did not have a material impact on the Plan's financial statements.

SFAS No. 157 establishes a three-level hierarchy for disclosure of fair value measurements that gives highest priority to unadjusted quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs, as follows:

Level 1 Inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2 Inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs other than quoted prices that are observable for the assets or liabilities, either directly or indirectly, for substantially the full term of the financial instrument.

Level 3 Inputs to the valuation methodology are unobservable and significant to the fair value measurement. These inputs reflect management's best estimate of what market participants would use in pricing the assets or liabilities at the measurement date.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. Following is a description of the valuation methodologies used for instruments within the Plan measured at fair value, including the general classification of such instruments pursuant to the valuation hierarchy.

*Corporate Common Stock*

The Company's common stock is traded on an active exchange, and accordingly is classified in Level 1 of the fair value hierarchy.

*Common Collective Trust and Mutual Funds*

These investments are public and private investment vehicles valued using the Net Asset Value ( NAV ) provided by the administrator of the fund. The NAV is based on the value of the underlying assets owned by the fund, minus its liabilities, and then divided by the number of shares outstanding. The NAV is a quoted price in a market that is not active and classified within Level 2 of the valuation hierarchy. Furthermore, adjustments to NAV based on unobservable inputs may result in the fair value measurement being classified as Level 3 measurement, if those inputs are significant to the overall fair value measurement.



**Table of Contents***Participant Loans*

Participant loans are valued at amortized cost, which approximates fair value, and are classified within Level 3 of the valuation hierarchy.

Plan assets have been classified in their entirety within a level of the fair value hierarchy based on the lowest level of input that is significant to the estimated fair value measurement, as set forth below:

|                                    | Total               | Estimated Fair Value Measurements at December 31, 2008                     |                                                     |                                                 |
|------------------------------------|---------------------|----------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------|
|                                    |                     | Quoted Prices in<br>Active Markets for<br>Identical<br>Assets<br>(Level 1) | Significant Other<br>Observable Inputs<br>(Level 2) | Significant<br>Unobservable Inputs<br>(Level 3) |
| Aerosonic Corporation common stock | \$ 16,738           | \$ 16,738                                                                  |                                                     |                                                 |
| Registered investment companies    | 2,576,978           | 2,576,978                                                                  |                                                     |                                                 |
| Common collective trusts           | 842,375             |                                                                            | \$ 842,375                                          |                                                 |
| Participants loans                 | 190,819             |                                                                            |                                                     | \$ 190,819                                      |
| <b>Total Investments</b>           | <b>\$ 3,626,910</b> | <b>\$ 2,593,716</b>                                                        | <b>\$ 842,375</b>                                   | <b>\$ 190,819</b>                               |

The change in the fair value of the Plan's Level 3 investments for the year ended December 31, 2008 is set forth in the table below:

|                                                                           | Participant<br>Loans |
|---------------------------------------------------------------------------|----------------------|
| Balance, beginning of year                                                | \$ 161,435           |
| Realized gains (losses)                                                   |                      |
| Unrealized gains (losses) relating to assets still held at reporting date |                      |
| Purchase, sales, issuances and settlements, net                           | 29,384               |
| Balance, end of year                                                      | \$ 190,819           |

**6. Tax Status**

The most recent favorable determination letter received by the Plan was dated November 6, 2007 which provides that the form of the Plan qualifies under the applicable provisions of the Internal Revenue Code for exemption from federal income taxes. Accordingly, no provision for income taxes has been included in the accompanying financial statements.

**7. Plan Amendment and Termination**

Although the Company has not expressed any intent to do so, the Company has the right, under the Plan, to amend any or all provisions of the Plan as well as terminate the Plan at any time, subject to the provisions of ERISA. In the event of Plan termination, participants will become 100% vested in their accounts. All such vested interests shall be non-forfeitable.

**8. Concentrations of Credit Risk**

Financial instruments which potentially subject the Plan to concentrations of credit risk consist of the Plan's investments. Management maintains the Plan's investments with what management believes to be high credit quality financial institutions and attempts to limit the amount of credit exposure to any particular investment.



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**9. Party-In-Interest**

Section 3(14) of ERISA defines a party-in-interest to include, among others, fiduciaries or employees of the Plan, any person who provides services to the Plan, or an employer whose employees are covered by the Plan. Certain Plan investments are shares of registered investment companies and common collective trusts managed by Wachovia Bank, N.A. Wachovia Bank, N.A. is the trustee as defined by the Plan. Therefore, these transactions qualify as party-in-interest transactions. An employee of the Company serves as the plan administrator of the Plan. In addition, Plan investments include investments in the Company's common stock; therefore, these transactions also qualify as party-in-interest transactions.

**10. Prohibited Transactions**

During 2008, the Plan sponsor inadvertently failed to deposit \$25,804 of participant deferrals within the required timeframe as stated by the United States Department of Labor ( DOL ). The DOL considers late deposits to be prohibited transactions. The Plan sponsor will file a Form 5330 and pay all applicable excise taxes on the amounts that were not deposited within the required timeframe. The excise tax payments will be made from the Plan sponsor's assets and not from assets of the Plan.

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**Table of Contents****Schedule I****AEROSONIC CORPORATION****401(k) PLAN****Schedule H, Part IV, Line 4(i) - Schedule of Assets****(Held at End of Year December 31, 2008)****EIN #74-1668471****Plan #002**

| (b)                                                   |                    | (c)                                                                                         |  |       |               |
|-------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------|--|-------|---------------|
| Identity of issue,<br><br>borrower, lessor or similar |                    | Description of investment including<br><br>maturity date, rate of interest, collateral, par |  | (d)   | (e)           |
| (a)                                                   | Party              | or maturity date                                                                            |  | Cost  | Current value |
| Common Collective Trusts                              |                    |                                                                                             |  |       |               |
| *                                                     | Wachovia Bank N.A. | Enhanced Stk Mkt FD - AT (483.1945 Units)                                                   |  | \$ ** | \$ 4,848      |
| *                                                     | Wachovia Bank N.A. | Stable Investment - AT (837.6322 Units)                                                     |  | **    | 9,618         |
| *                                                     | Wachovia Bank N.A. | Wachovia Diversified Bond - AT (1,459.7604 Units)                                           |  | **    | 14,247        |
| *                                                     | Wachovia Bank N.A. | Wachovia Div Stable Value (2,253.3922 Units)                                                |  | **    | 762,448       |
| *                                                     | Wachovia Bank N.A. | Enhanced Stock Market (765.0307 Units)                                                      |  | **    | 51,214        |
| Registered Investment Companies                       |                    |                                                                                             |  |       |               |
|                                                       |                    | Van Kampen US Mortgage/A (20,620.4246 Units)                                                |  | **    | 250,588       |
|                                                       |                    | PIMCO Total Return/A (8,914.6002 Units)                                                     |  | **    | 120,650       |
|                                                       |                    | Oakmark Equity & Inc. II (25,949.6102 Units)                                                |  | **    | 557,398       |
|                                                       |                    | Riversource Diversified Equity Inc. A (33,391.1410 Units)                                   |  | **    | 236,075       |
|                                                       |                    | American Funds Growth R3 (41,196.6719 Units)                                                |  | **    | 832,173       |
|                                                       |                    | Riversource Mid Cap Value A (20,659.7550 Units)                                             |  | **    | 96,688        |
|                                                       |                    | Thornburg Core Growth R3 (3,554.6410 Units)                                                 |  | **    | 34,693        |
|                                                       |                    | DWS Global Opportunities A (15,736.1870 Units)                                              |  | **    | 331,247       |
|                                                       |                    | DWS Dreman Small Cap Value A (221.5650 Units)                                               |  | **    | 5,293         |
|                                                       |                    | Alger Fund - Small Cap Growth (742.6140 Units)                                              |  | **    | 11,451        |
|                                                       |                    | PIMCO Real Return/Institutional - AT (806.4080 Units)                                       |  | **    | 8,196         |
|                                                       |                    | PIMCO High Yield I - AT (461.5815 Units)                                                    |  | **    | 4,667         |
|                                                       |                    | Evergreen Intl Bond I - AT (493.5531 Units)                                                 |  | **    | 6,808         |
|                                                       |                    | T. Rowe Price Equity Income - AT (856.6724 Units)                                           |  | **    | 8,804         |
|                                                       |                    | Evergreen Strategic Growth Income - AT (629.8995 Units)                                     |  | **    | 6,144         |
|                                                       |                    | Evergreen Intl Equity I - AT (607.7973 Units)                                               |  | **    | 8,310         |
|                                                       |                    | PIMCO Total Return/Inst (2,122.6694 Units)                                                  |  | **    | 22,167        |
|                                                       |                    | Dreyfus Premier Small Cap Equity - AT (541.9977 Units)                                      |  | **    | 3,788         |
|                                                       |                    | Alger Funds Small Cap Gro Instl/I - AT (212.5575 Units)                                     |  | **    | 1,503         |
|                                                       |                    | T. Rowe Price Real Estate - AT (468.8128 Units)                                             |  | **    | 2,563         |

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|-----------------------------------------|--------------------------------------------------------------------------------------------|-------------------|---------------------|
|                                         | Lazard Emerging Markets/I AT (192.9255 Units)                                              | **                | 1,734               |
|                                         | Goldman Sachs Large Cap Val/I - AT (1,632.2692 Units)                                      | **                | 9,839               |
|                                         | JP Morgan High Yield - AT (951.5137 Units)                                                 | **                | 7,202               |
|                                         | T. Rowe Price Growth Stk - AT (1,605.8418 Units)                                           | **                | 8,997               |
| <b>Common Stock</b>                     |                                                                                            |                   |                     |
| * Aerosonic Corporation<br>Common Stock | Equity Securities of Aerosonic Corporation, par value \$0.40                               | 100,795           | 16,738              |
| <b>Participant Loans</b>                |                                                                                            |                   |                     |
| * Participant Loans                     | Various maturities ranging from May 2008 to July 2015 (interest rates from 4.25% to 9.25%) | **                | 190,819             |
|                                         |                                                                                            | <b>\$ 100,795</b> | <b>\$ 3,626,910</b> |

\* Party-in-interest

\*\* Historical cost is not required as investments are participant-directed

**Table of Contents****Schedule II****AEROSONIC CORPORATION****401(k) PLAN****Schedule H, Part IV, Line 4(a) Schedule of Delinquent Participant Contributions****EIN #74-1668471****Plan #002**

| (a)                        | (b)                                                       | (c)                                                                                                      | (d)                 | (e)           |
|----------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------|---------------|
| Identity of party involved | Relationship to plan, employer or other Party-in-interest | Description of transactions including maturity date, rate of interest, collateral, par or maturity value | Amount on line 4(a) | Lost earnings |
| Aerosonic Corp             | Plan Sponsor                                              | Loan to employer in the form of late remittal of employee contributions and loan repayments              | \$ 462              | \$ 6          |
| Aerosonic Corp             | Plan Sponsor                                              | Loan to employer in the form of late remittal of employee contributions and loan repayments              | \$ 3,161            | \$ 122        |
| Aerosonic Corp             | Plan Sponsor                                              | Loan to employer in the form of late remittal of employee contributions and loan repayments              | \$ 6,916            | \$ 14         |
| Aerosonic Corp             | Plan Sponsor                                              | Loan to employer in the form of late remittal of employee contributions and loan repayments              | \$ 8,867            | \$ 317        |
| Aerosonic Corp             | Plan Sponsor                                              | Loan to employer in the form of late remittal of employee contributions and loan repayments              | \$ 6,398            | \$ 49         |

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**AEROSONIC CORPORATION**

**401(k) PLAN**

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Plan Administrator of the Aerosonic Corporation 401(k) Plan has duly caused this annual report to be signed on its behalf by the undersigned thereunto duly authorized.

**Aerosonic Corporation 401(k) Plan**

By: /s/ Gayle Spaulding  
Administrator and Agent for Service  
of Legal Process of the Aerosonic  
Corporation 401(k) Plan

June 29, 2009

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