

Form 5500 Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Annual Return/Report of Employee Benefit Plan This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6047(e), and 6058(a) of the Internal Revenue Code (the Code). ▶ Complete all entries in accordance with the instructions to the Form 5500.	OMB Nos. 1210-0110 1210-0089 2009 This Form is Open to Public Inspection
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Part I	Annual Report Identification Information
For calendar plan year 2009 or fiscal plan year beginning <u>01/01/2009</u> and ending <u>12/31/2009</u>	
A This return/report is for:	☐ a multiemployer plan; ☐ a multiple-employer plan; or ☒ a single-employer plan; ☐ a DFE (specify) ____
B This return/report is:	☐ the first return/report; ☐ the final return/report; ☒ an amended return/report; ☐ a short plan year return/report (less than 12 months).
C If the plan is a collectively-bargained plan, check here.	☐
D Check box if filing under:	☒ Form 5558; ☐ automatic extension; ☐ the DFVC program; ☐ special extension (enter description)

Part II	Basic Plan Information —enter all requested information				
1a Name of plan <u>AEROSONIC CORPORATION 401(K) PLAN</u>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">1b Three-digit plan number (PN) ▶</td> <td style="width: 20%; text-align: center;"><u>002</u></td> </tr> <tr> <td colspan="2">1c Effective date of plan <u>02/01/1993</u></td> </tr> </table>	1b Three-digit plan number (PN) ▶	<u>002</u>	1c Effective date of plan <u>02/01/1993</u>	
1b Three-digit plan number (PN) ▶	<u>002</u>				
1c Effective date of plan <u>02/01/1993</u>					
2a Plan sponsor's name and address (employer, if for a single-employer plan) (Address should include room or suite no.) <u>AEROSONIC CORPORATION</u> <u>1212 NORTH HERCULES AVENUE</u> <u>CLEARWATER, FL 33765-1920</u>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>2b Employer Identification Number (EIN) <u>74-1668471</u></td> </tr> <tr> <td>2c Sponsor's telephone number <u>727-461-3000</u></td> </tr> <tr> <td>2d Business code (see instructions) <u>336410</u></td> </tr> </table>	2b Employer Identification Number (EIN) <u>74-1668471</u>	2c Sponsor's telephone number <u>727-461-3000</u>	2d Business code (see instructions) <u>336410</u>	
2b Employer Identification Number (EIN) <u>74-1668471</u>					
2c Sponsor's telephone number <u>727-461-3000</u>					
2d Business code (see instructions) <u>336410</u>					

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE	Filed with authorized/valid electronic signature.	10/15/2010	KEVIN PURCELL
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE			
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

For Paperwork Reduction Act Notice and OMB Control Numbers, see the instructions for Form 5500.

Form 5500 (2009)
v.092307.1

3a Plan administrator's name and address (if same as plan sponsor, enter "Same") AEROSONIC CORPORATION 1212 NORTH HERCULES AVENUE CLEARWATER, FL 33765-1920	3b Administrator's EIN 74-1668471 3c Administrator's telephone number 727-461-3000
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4 If the name and/or EIN of the plan sponsor has changed since the last return/report filed for this plan, enter the name, EIN and the plan number from the last return/report: a Sponsor's name	4b EIN 4c PN
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5 Total number of participants at the beginning of the plan year	5	453
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6 Number of participants as of the end of the plan year (welfare plans complete only lines 6a , 6b , 6c , and 6d).		
a Active participants.....	6a	283
b Retired or separated participants receiving benefits.....	6b	0
c Other retired or separated participants entitled to future benefits.....	6c	161
d Subtotal. Add lines 6a , 6b , and 6c	6d	444
e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits.....	6e	2
f Total. Add lines 6d and 6e	6f	446
g Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item).....	6g	268
h Number of participants that terminated employment during the plan year with accrued benefits that were less than 100% vested.....	6h	0

7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)	7	
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8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristic Codes in the instructions:
2E 2F 2G 2J 2K

b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristic Codes in the instructions:

9a Plan funding arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor	9b Plan benefit arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor
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10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)

a Pension Schedules

- (1)** ☒ **R** (Retirement Plan Information)
(2) ☐ **MB** (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary
(3) ☐ **SB** (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary

b General Schedules

- (1)** ☒ **H** (Financial Information)
(2) ☐ **I** (Financial Information – Small Plan)
(3) ☐ **A** (Insurance Information)
(4) ☒ **C** (Service Provider Information)
(5) ☒ **D** (DFE/Participating Plan Information)
(6) ☐ **G** (Financial Transaction Schedules)

SCHEDULE C (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Service Provider Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ▶ File as an attachment to Form 5500.	OMB No. 1210-0110
		2009
		This Form is Open to Public Inspection.

For calendar plan year 2009 or fiscal plan year beginning 01/01/2009 and ending 12/31/2009

A Name of plan AEROSONIC CORPORATION 401(K) PLAN	B Three-digit plan number (PN) ▶ 002
C Plan sponsor's name as shown on line 2a of Form 5500 AEROSONIC CORPORATION	D Employer Identification Number (EIN) 74-1668471

Part I

Service Provider Information (see instructions)

You must complete this Part, in accordance with the instructions, to report the information required for **each person** who received, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of monetary value) in connection with services rendered to the plan or the person's position with the plan during the plan year. If a person received **only** eligible indirect compensation for which the plan received the required disclosures, you are required to answer line 1 but are not required to include that person when completing the remainder of this Part.

1 Information on Persons Receiving Only Eligible Indirect Compensation

a Check "Yes" or "No" to indicate whether you are excluding a person from the remainder of this Part because they received only eligible indirect compensation for which the plan received the required disclosures (see instructions for definitions and conditions)..... ☒ Yes ☐ No

b If you answered line 1a "Yes," enter the name and EIN or address of each person providing the required disclosures for the service providers who received only eligible indirect compensation. Complete as many entries as needed (see instructions).

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

ALGER

13-2665689

(b) Enter name and EIN or address of person who provided you disclosure on eligible indirect compensation

AMERICAN FUNDS

95-1411037

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

DREYFUS

13-5673135

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

DWS

13-3241232

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

EVERGREEN

04-6599663

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

GOLDMAN SACHS

13-5108880

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

JPMORGAN

13-2624428

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

LAZARD

20-4571006

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

OAKMARK

04-3276558

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

PIMCO FUNDS

95-2632339

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

RIVERSOURCE

13-3180631

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

T. ROWE PRICE

52-2264646

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

THORNBURG

85-0301299

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

VAN KAMPEN

36-2811402

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

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(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

WACHOVIA BANK, N.A.

22-1147033

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
15 21 49 50 52 60 62 63 64	NONE	12263	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☐ No ☒

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

Part I Service Provider Information (continued)

3 If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation

(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation

(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation

(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.

Part II Service Providers Who Fail or Refuse to Provide Information

4 Provide, to the extent possible, the following information for each service provider who failed or refused to provide the information necessary to complete this Schedule.

(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide

Part III Termination Information on Accountants and Enrolled Actuaries (see instructions)
(complete as many entries as needed)

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN;
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN;
c Position:	
d Address:	e Telephone:

Explanation:

SCHEDULE D (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration	DFE/Participating Plan Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ▶ File as an attachment to Form 5500.	OMB No. 1210-0110 2009 This Form is Open to Public Inspection.
For calendar plan year 2009 or fiscal plan year beginning 01/01/2009 and ending 12/31/2009		
A Name of plan AEROSONIC CORPORATION 401(K) PLAN		B Three-digit plan number (PN) ▶ 002
C Plan or DFE sponsor's name as shown on line 2a of Form 5500 AEROSONIC CORPORATION		D Employer Identification Number (EIN) 74-1668471
Part I	Information on interests in MTIAs, CCTs, PSAs, and 103-12 IEs (to be completed by plans and DFEs) (Complete as many entries as needed to report all interests in DFEs)	
a Name of MTIA, CCT, PSA, or 103-12 IE: DIVERSIFIED STABLE VALUE FUND		
b Name of sponsor of entity listed in (a): WACHOVIA BANK, N.A.		
c EIN-PN 56-6592596-001	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 701334
a Name of MTIA, CCT, PSA, or 103-12 IE: ENHANCED STOCK MARKET FUND		
b Name of sponsor of entity listed in (a): WACHOVIA BANK, N.A.		
c EIN-PN 56-6288528-001	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 1735
a Name of MTIA, CCT, PSA, or 103-12 IE: DIVERSIFIED BOND GROUP TRUST		
b Name of sponsor of entity listed in (a): WACHOVIA BANK, N.A.		
c EIN-PN 54-6113592-001	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 855
a Name of MTIA, CCT, PSA, or 103-12 IE: STABLE INVESTMENT FUND		
b Name of sponsor of entity listed in (a): WACHOVIA BANK, N.A.		
c EIN-PN 56-6271988-001	d Entity code P	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 0
a Name of MTIA, CCT, PSA, or 103-12 IE:		
b Name of sponsor of entity listed in (a):		
c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
a Name of MTIA, CCT, PSA, or 103-12 IE:		
b Name of sponsor of entity listed in (a):		
c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
a Name of MTIA, CCT, PSA, or 103-12 IE:		
b Name of sponsor of entity listed in (a):		
c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
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103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)

Part II Information on Participating Plans (to be completed by DFEs)

(Complete as many entries as needed to report all participating plans)

a Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
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plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN

SCHEDULE H (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Financial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code). ► File as an attachment to Form 5500.	OMB No. 1210-0110
		2009
		This Form is Open to Public Inspection

For calendar plan year 2009 or fiscal plan year beginning 01/01/2009 and ending 12/31/2009		
A Name of plan AEROSONIC CORPORATION 401(K) PLAN	B Three-digit plan number (PN) ►	002
C Plan sponsor's name as shown on line 2a of Form 5500 AEROSONIC CORPORATION	D Employer Identification Number (EIN) 74-1668471	

Part I	Asset and Liability Statement
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1 Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. **Round off amounts to the nearest dollar.** MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.

Assets		(a) Beginning of Year	(b) End of Year
a Total noninterest-bearing cash	1a		40
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions	1b(1)	32046	
(2) Participant contributions	1b(2)		
(3) Other.....	1b(3)		
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit)	1c(1)	0	
(2) U.S. Government securities.....	1c(2)		
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)		
(B) All other.....	1c(3)(B)		
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)		
(B) Common	1c(4)(B)		
(5) Partnership/joint venture interests	1c(5)		
(6) Real estate (other than employer real property)	1c(6)		
(7) Loans (other than to participants)	1c(7)		
(8) Participant loans	1c(8)	190819	243577
(9) Value of interest in common/collective trusts.....	1c(9)	842375	703924
(10) Value of interest in pooled separate accounts.....	1c(10)		
(11) Value of interest in master trust investment accounts	1c(11)		
(12) Value of interest in 103-12 investment entities	1c(12)		
(13) Value of interest in registered investment companies (e.g., mutual funds).....	1c(13)	2576978	3008098
(14) Value of funds held in insurance company general account (unallocated contracts).....	1c(14)		
(15) Other	1c(15)	38122	0

1d Employer-related investments:

		(a) Beginning of Year	(b) End of Year
(1) Employer securities	1d(1)	16738	279121
(2) Employer real property	1d(2)		
e Buildings and other property used in plan operation	1e		
f Total assets (add all amounts in lines 1a through 1e)	1f	3697078	4234760

Liabilities

g Benefit claims payable	1g		
h Operating payables	1h	0	
i Acquisition indebtedness	1i		
j Other liabilities	1j		
k Total liabilities (add all amounts in lines 1g through 1j)	1k	0	0

Net Assets

l Net assets (subtract line 1k from line 1f)	1l	3697078	4234760
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Part II Income and Expense Statement

2 Plan income, expenses, and changes in net assets for the year. Include all income and expenses of the plan, including any trust(s) or separately maintained fund(s) and any payments/receipts to/from insurance carriers. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 2a, 2b(1)(E), 2e, 2f, and 2g.

Income**a Contributions:**

		(a) Amount	(b) Total
(1) Received or receivable in cash from: (A) Employers	2a(1)(A)	0	
(B) Participants	2a(1)(B)	215556	
(C) Others (including rollovers)	2a(1)(C)		
(2) Noncash contributions	2a(2)		
(3) Total contributions. Add lines 2a(1)(A) , (B) , (C) , and line 2a(2)	2a(3)		215556

b Earnings on investments:**(1) Interest:**

(A) Interest-bearing cash (including money market accounts and certificates of deposit)	2b(1)(A)		
(B) U.S. Government securities	2b(1)(B)		
(C) Corporate debt instruments	2b(1)(C)		
(D) Loans (other than to participants)	2b(1)(D)		
(E) Participant loans	2b(1)(E)	11994	
(F) Other	2b(1)(F)		
(G) Total interest. Add lines 2b(1)(A) through (F)	2b(1)(G)		11994

(2) Dividends: (A) Preferred stock	2b(2)(A)		
(B) Common stock	2b(2)(B)		
(C) Registered investment company shares (e.g. mutual funds)	2b(2)(C)	30655	
(D) Total dividends. Add lines 2b(2)(A) , (B) , and (C)	2b(2)(D)		30655

(3) Rents	2b(3)		
-----------------	--------------	--	--

(4) Net gain (loss) on sale of assets: (A) Aggregate proceeds	2b(4)(A)	89230	
(B) Aggregate carrying amount (see instructions)	2b(4)(B)	50429	
(C) Subtract line 2b(4)(B) from line 2b(4)(A) and enter result	2b(4)(C)		38801

		(a) Amount	(b) Total
2b (5) Unrealized appreciation (depreciation) of assets: (A) Real estate.....	2b(5)(A)		
(B) Other	2b(5)(B)	101882	
(C) Total unrealized appreciation of assets. Add lines 2b(5)(A) and (B)	2b(5)(C)		101882
(6) Net investment gain (loss) from common/collective trusts	2b(6)		18072
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		
(9) Net investment gain (loss) from 103-12 investment entities	2b(9)		
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds).....	2b(10)		565207
c Other income.....	2c		5172
d Total income. Add all income amounts in column (b) and enter total.....	2d		987339

Expenses

e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	421796	
(2) To insurance carriers for the provision of benefits	2e(2)		
(3) Other	2e(3)		
(4) Total benefit payments. Add lines 2e(1) through (3)	2e(4)		421796
f Corrective distributions (see instructions)	2f		
g Certain deemed distributions of participant loans (see instructions).....	2g		
h Interest expense.....	2h		
i Administrative expenses: (1) Professional fees	2i(1)		
(2) Contract administrator fees	2i(2)		
(3) Investment advisory and management fees	2i(3)		
(4) Other	2i(4)	27861	
(5) Total administrative expenses. Add lines 2i(1) through (4)	2i(5)		27861
j Total expenses. Add all expense amounts in column (b) and enter total.....	2j		449657

Net Income and Reconciliation

k Net income (loss). Subtract line 2j from line 2d	2k		537682
l Transfers of assets:			
(1) To this plan.....	2l(1)		
(2) From this plan	2l(2)		

Part III Accountant's Opinion

3 Complete lines 3a through 3c if the opinion of an independent qualified public accountant is attached to this Form 5500. Complete line 3d if an opinion is not attached.

a The attached opinion of an independent qualified public accountant for this plan is (see instructions):

(1) ☒ Unqualified (2) ☐ Qualified (3) ☐ Disclaimer (4) ☐ Adverse

b Did the accountant perform a limited scope audit pursuant to 29 CFR 2520.103-8 and/or 103-12(d)? ☐ Yes ☒ No

c Enter the name and EIN of the accountant (or accounting firm) below:

(1) Name: KIRKLAND, RUSS, MURPHY & TAPP

(2) EIN: 59-3076061

d The opinion of an independent qualified public accountant is **not attached** because:

(1) ☐ This form is filed for a CCT, PSA, or MTIA. (2) ☐ It will be attached to the next Form 5500 pursuant to 29 CFR 2520.104-50.

Part IV Compliance Questions

- 4** CCTs and PSAs do not complete Part IV. MTIAs, 103-12 IEs, and GIAs do not complete 4a, 4e, 4f, 4g, 4h, 4k, 4m, 4n, or 5. 103-12 IEs also do not complete 4j and 4l. MTIAs also do not complete 4l.

During the plan year:

	Yes	No	Amount
a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program.).....	X		77021
b Were any loans by the plan or fixed income obligations due the plan in default as of the close of the plan year or classified during the year as uncollectible? Disregard participant loans secured by participant's account balance. (Attach Schedule G (Form 5500) Part I if "Yes" is checked.).....		X	
c Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)		X	
d Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.).....		X	
e Was this plan covered by a fidelity bond?.....	X		500000
f Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?		X	
g Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?		X	
h Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?		X	
i Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.).....	X		
j Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked, and see instructions for format requirements.).....		X	
k Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?.....		X	
l Has the plan failed to provide any benefit when due under the plan?		X	
m If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.).....		X	
n If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3.		X	

- 5a** Has a resolution to terminate the plan been adopted during the plan year or any prior plan year?
If yes, enter the amount of any plan assets that reverted to the employer this year ☐ Yes ☒ No Amount:

- 5b** If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

5b(1) Name of plan(s)

5b(2) EIN(s)

5b(3) PN(s)

5b(1) Name of plan(s)	5b(2) EIN(s)	5b(3) PN(s)

SCHEDULE R (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Retirement Plan Information This schedule is required to be filed under section 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6058(a) of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500.	OMB No. 1210-0110
		2009
		This Form is Open to Public Inspection.

For calendar plan year 2009 or fiscal plan year beginning <u>01/01/2009</u> and ending <u>12/31/2009</u>		
A Name of plan <u>AEROSONIC CORPORATION 401(K) PLAN</u>	B Three-digit plan number (PN) ▶ <u>002</u>	
C Plan sponsor's name as shown on line 2a of Form 5500 <u>AEROSONIC CORPORATION</u>	D Employer Identification Number (EIN) <u>74-1668471</u>	

Part I	Distributions
---------------	----------------------

All references to distributions relate only to payments of benefits during the plan year.

1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions.....

1	<u>0</u>
----------	----------

2 Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits):
EIN(s): 56-1354495

Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.

3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year.....

3	
----------	--

Part II	Funding Information (If the plan is not subject to the minimum funding requirements of section 412 of the Internal Revenue Code or ERISA section 302, skip this Part)
----------------	--

4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)?..... ☐ Yes ☐ No ☐ N/A
If the plan is a defined benefit plan, go to line 8.

5 If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions and enter the date of the ruling letter granting the waiver. **Date:** Month _____ Day _____ Year _____
If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.

6 **a** Enter the minimum required contribution for this plan year

6a	
b Enter the amount contributed by the employer to the plan for this plan year	
c Subtract the amount in line 6b from the amount in line 6a. Enter the result (enter a minus sign to the left of a negative amount).....	
6c	

If you completed line 6c, skip lines 8 and 9.

7 Will the minimum funding amount reported on line 6c be met by the funding deadline? ☐ Yes ☐ No ☐ N/A

8 If a change in actuarial cost method was made for this plan year pursuant to a revenue procedure providing automatic approval for the change or a class ruling letter, does the plan sponsor or plan administrator agree with the change?..... ☐ Yes ☐ No ☐ N/A

Part III	Amendments
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9 If this is a defined benefit pension plan, were any amendments adopted during this plan year that increased or decreased the value of benefits? If yes, check the appropriate box(es). If no, check the "No" box..... ☐ Increase ☐ Decrease ☐ Both ☐ No

Part IV	ESOPs (see instructions). If this is not a plan described under Section 409(a) or 4975(e)(7) of the Internal Revenue Code, skip this Part.
----------------	---

10 Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan?..... ☐ Yes ☐ No

11 **a** Does the ESOP hold any preferred stock? ☐ Yes ☐ No
b If the ESOP has an outstanding exempt loan with the employer as lender, is such loan part of a "back-to-back" loan? (See instructions for definition of "back-to-back" loan.) ☐ Yes ☐ No

12 Does the ESOP hold any stock that is not readily tradable on an established securities market? ☐ Yes ☐ No

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

13 Enter the following information for each employer that contributed more than 5% of total contributions to the plan during the plan year (measured in dollars). See instructions. *Complete as many entries as needed to report all applicable employers.*

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete items 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete items 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete items 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete items 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete items 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete items 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

- 14** Enter the number of participants on whose behalf no contributions were made by an employer as an employer of the participant for:

a The current year	14a	
b The plan year immediately preceding the current plan year	14b	
c The second preceding plan year	14c	

- 15** Enter the ratio of the number of participants under the plan on whose behalf no employer had an obligation to make an employer contribution during the current plan year to:

a The corresponding number for the plan year immediately preceding the current plan year	15a	
b The corresponding number for the second preceding plan year	15b	

- 16** Information with respect to any employers who withdrew from the plan during the preceding plan year:

a Enter the number of employers who withdrew during the preceding plan year	16a	
b If item 16a is greater than 0, enter the aggregate amount of withdrawal liability assessed or estimated to be assessed against such withdrawn employers	16b	

- 17** If assets and liabilities from another plan have been transferred to or merged with this plan during the plan year, check box and see instructions regarding supplemental information to be included as an attachment. ☐

Part VI Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans

- 18** If any liabilities to participants or their beneficiaries under the plan as of the end of the plan year consist (in whole or in part) of liabilities to such participants and beneficiaries under two or more pension plans as of immediately before such plan year, check box and see instructions regarding supplemental information to be included as an attachment. ☐

- 19** If the total number of participants is 1,000 or more, complete items (a) through (c)

a Enter the percentage of plan assets held as:
 Stock: _____% Investment-Grade Debt: _____% High-Yield Debt: _____% Real Estate: _____% Other: _____%

b Provide the average duration of the combined investment-grade and high-yield debt:
☐ 0-3 years ☐ 3-6 years ☐ 6-9 years ☐ 9-12 years ☐ 12-15 years ☐ 15-18 years ☐ 18-21 years ☐ 21 years or more

c What duration measure was used to calculate item 19(b)?
☐ Effective duration ☐ Macaulay duration ☐ Modified duration ☐ Other (specify): _____



**KIRKLAND, RUSS,
MURPHY & TAPP**

CERTIFIED PUBLIC ACCOUNTANTS

A Professional Association

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 audits.

We conducted our audits in accordance with auditing standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits 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 audits 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 its 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 audits were 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 the 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 audits 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.

Kirkland, Russ, Murphy & Tapp P.A.

June 29, 2010

11-K 1 v189469_11k.htm 11-K

**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**

**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 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

	<u>2009</u>	<u>2008</u>
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	<u>243,577</u>	<u>190,819</u>
Total investments	4,219,681	3,626,910
Contribution receivable	<u>13,223</u>	<u>32,046</u>
Net assets available for benefits at fair value	4,232,904	3,658,956
Adjustment from fair value to contract value for fully benefit responsive investment contract	<u>15,079</u>	<u>38,122</u>
Net assets available for benefits	<u>\$ 4,247,983</u>	<u>\$ 3,697,078</u>

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

AEROSONIC CORPORATION
401(k) PLAN

Statement of Changes in Net Assets Available for Benefits
For the Year Ended December 31, 2009

Additions to net assets attributed to:

Investment income:

Interest and dividends	\$ 42,700
Net appreciation in fair value of investments	<u>728,671</u>
Total investment income	771,371

Contributions:

Participant contributions	229,301
Total additions	<u>1,000,672</u>

Deductions from net assets attributed to:

Benefits paid to participants	(421,796)
Administrative expenses	<u>(27,971)</u>
Total deductions	<u>(449,767)</u>

Net increase	550,905
--------------	---------

Net assets available for plan benefits:

Beginning of year	<u>3,697,078</u>
End of year	<u><u>\$ 4,247,983</u></u>

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

**Aerosonic Corporation 401(k) Plan
Notes to Financial Statements
December 31, 2009 and 2008**

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 \$16,500 and \$15,500 for 2009 and 2008, respectively. For participants over the age of 50, an additional catch-up contribution of \$5,500 and \$5,000 is also allowed for 2009 and 2008, respectively. 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. In the past, the Company contributed an amount equal to 100% of a participant’s contributions up to 3% of eligible compensation. As a result of the Company’s January 31, 2009 suspension of employer contributions, the total matching contribution made to the Plan amounted to \$0 in cash for the year ended December 31, 2009. Effective June 11, 2010, the Company has resumed employer contributions to the Plan.

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 2009.

Forfeitures

The balance of amounts forfeited by nonvested accounts of inactive participants as of December 31, 2009 and December 31, 2008 was \$3,847 and \$3,807, respectively. Under Article V of the Plan Document, forfeitures may first be applied towards plan expenses and then to reduce future employer contributions, other than elective contributions.

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 chose 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.

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:

Years of Service	Vesting Percentage
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 59½ 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 70½ 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 was 4.25% per annum during the 2009 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 the Company's common stock is determined using the closing market price from the NYSE Amex at December 31, 2009.

Wachovia Diversified Stable Value Fund (the "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. The average yield earned by the Fund was 2.6% and 4.8% for the years ended December 31, 2009 and 2008, respectively. On a quarterly basis, the crediting interest rate was reset to determine the sensitivity of the Fund to the market yield. Accounting principles generally accepted in the United States of America require common collective trusts 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, 2009, the fund is recorded at fair value with an adjustment to contract value on the Statement of Net Assets Available for Benefit. The Company is not aware of any event that would limit the Plan's ability to execute transactions at contract value.

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 Appreciation in Fair Value of Investments

The Plan presents in the statement of changes in net assets available for benefits, the net appreciation 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, 2009.

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:

	2009	2008
American Funds Growth R3	\$958,367	\$832,173
Oakmark Equity & Inc. II	575,463	557,398
DWS Global Opportunities A	400,483	331,247
Wachovia Div Stable Value	701,334	762,448
Pimco Total Return / A	349,402	*
Aerosonic Corp Del Com Par \$0.40	279,121	*
Riversource Diversified Equity Inc. A	239,647	236,075
Van Kampen US Mortgage /A	259,993	250,588

* Did not represent 5% or more of net assets available for benefits

4. Net Appreciation 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), increased in value by \$728,671 during the year ended December 31, 2009, as follows:

Registered investment companies	\$ 568,253
Common Collective Trusts	15,112
Aerosonic Corporation common stock	145,306
	<u>\$ 728,671</u>

5. Fair Value Measurements

FASB ASC 820 *Fair Value Measurements and Disclosures* ("FASB ASC 820") establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under FASB ASC 820 for financial assets and financial liabilities are described below:

- 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.

Aerosonic Corporation 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

Investments in common collective trust funds are valued based on the year-end unit value; unit values are determined by the issuer or Third Party Administrator by dividing the fair values of the total net assets at year-end by the outstanding units. The fair values of the total net assets are determined by the nature of the underlying investments. Each underlying investment is valued at fair value in accordance with the valuation description associated with its investment type as stated above. Units in common collective trust funds, which hold benefit-responsive contracts, are priced based upon fair value of the underlying investments with an adjustment to contract value in the Statements of Net Assets Available for Benefits. These assets are classified within Level 2 of the valuation hierarchy. Adjustments to these assets, based upon 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.

Registered Investment Companies

Investments in shares of registered investment companies are valued at quoted market prices, which represent the net asset values of shares held by the Plan at year-end.. These assets are classified within Level 1 of the valuation hierarchy.

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:

	Estimated Fair Value Measurements at December 31, 2009			
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Aerosonic Corporation common stock	\$ 279,121	\$ 279,121		
Registered investment companies	3,008,138	3,008,138		
Common collective trusts	688,845		\$ 688,845	
Participant loans	243,577			\$ 243,577
Total Investments	\$4,219,681	\$ 3,287,259	\$ 688,845	\$ 243,577

Estimated Fair Value Measurements at December 31, 2008				
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (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	
Participant loans	190,819			\$ 190,819
Total Investments	\$3,626,910	\$ 2,593,716	\$ 842,375	\$ 190,819

The change in the fair value of the Plan's level 3 investments for the year ended December 31, 2009 is set forth in the table below:

	Participant Loans
Balance, beginning of year	\$ 190,819
Realized gains (losses)	-
Unrealized gains (losses) relating to assets still held at reporting date	-
Purchase, sales, issuances and settlements, net	52,758
Balance, end of year	<u><u>\$ 243,577</u></u>

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. The plan has been amended since receiving the determination letter. However, the plan administrator and the plan's tax counsel believe that the plan is currently designed and being operated in compliance with the applicable requirements of the Internal Revenue Code.

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.

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 2009 and 2008, the Plan sponsor inadvertently failed to deposit \$44,975 and \$25,804, respectively, 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.

11. Reconciliation of Financial Statements to Form 5500

The following is a reconciliation of net assets available for benefits per the financial statements as of December 31, 2009 and 2008 to Form 5500:

	<u>2009</u>	<u>2008</u>
Statements of net assets available for benefits:		
Net assets available for benefits per the financial statements	\$ 4,247,983	\$ 3,697,078
Contributions receivable	(13,223)	-
Net assets available for benefits per Form 5500	<u>\$ 4,234,760</u>	<u>\$ 3,697,078</u>

The following is a reconciliation of changes in net assets per the financial statements for the year ended December 31, 2009, to total net income per Form 5500:

Statement of changes in net assets available for benefits:	
Net increase in net assets available for benefits	\$ 550,905
Accrued revenue for contributions receivable	(13,223)
Total net income per Form 5500	<u>\$ 537,682</u>

Schedule I

AEROSONIC CORPORATION
401(k) PLAN

Schedule H, Line 4(i) - Schedule of Assets
(Held at End of Year December 31, 2009)
EIN #74-1668471
Plan #002

(a)	(b) Identity of issue, borrower, lessor or similar Party	(c) Description of investment including maturity date, rate of interest, collateral, par or maturity date	(d) Cost	(e) Current value
Common Collective Trusts				
*	Wachovia Bank N.A.	Enhanced Stk Mkt FD - AT (137.63 Units)	\$ **	\$ 1,735
*	Wachovia Bank N.A.	Total Return Bond FD - AT (80.18 Units)	**	855
*	Wachovia Bank N.A.	Wachovia Div Stable Value (2,031.07 Units)	**	701,334
Registered Investment Companies				
		Van Kampen US Mortgage/A (19,957.62 Units)	**	259,993
		PIMCO Total Return/A (22,775.56 Units)	**	349,402
		Oakmark Equity & Inc. II (22,629.28 Units)	**	575,463
		Riversource Diversified Equity Inc. A (27,232.67 Units)	**	239,647
		American Funds Growth R3 (35,587.33 Units)	**	958,367
		Riversource Mid Cap Value A (9,067.62 Units)	**	58,486
		Thornburg Core Growth R3 (3,991.92 Units)	**	56,645
		DWS Global Opportunities A (12,934.19 Units)	**	400,483
		DWS Dreman Small Cap Value A (1,420.35 Units)	**	44,073
		Alger Fund - Small Cap Growth (88.94 Units)	**	898
		PIMCO Real Return/Institutional - AT (48.15 Units)	**	578
		Evergreen Intl Bond I - AT (56.49 Units)	**	856
		T. Rowe Price Equity Income - AT (267.24 Units)	**	3,432
		Evergreen Strategic Growth Income - AT (198.85 Units)	**	2,618
		Evergreen Intl Equity I - AT (322.21 Units)	**	5,089
		PIMCO Total Return/Inst (123.88 Units)	**	1,463
		Dreyfus Premier Small Cap Equity - AT (131.71 Units)	**	1,184
		Alger Funds Small Cap Gro Instl/I - AT (1,760.75 Units)	**	39,018
		T. Rowe Price Real Estate - AT (183.13 Units)	**	1,311
		Lazard Emerging Markets/I AT (79.74 Units)	**	1,209
		Goldman Sachs Large Cap Val/I - AT (536.41 Units)	**	4,024
		JP Morgan High Yield - AT (54.98 Units)	**	614
		T. Rowe Price Growth Stk - AT (411.48 Units)	**	3,285
Common Stock				
*	Aerosonic Corporation Common Stock	Equity Securities of Aerosonic Corporation, par value \$0.40	237,324	279,121
Participant Loans				
*	Participant Loans	Various maturities ranging from January 2010 to December 2014 (interest rates from 4.25% to 9.25%)	**	243,577
			\$ 237,324	\$ 4,234,760

* Party-in-interest

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

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Schedule II

AEROSONIC CORPORATION
401(k) PLAN

Schedule H, Line 4(a) – Schedule of Delinquent Participant Contributions
EIN #74-1668471
Plan #002

Participant Contributions Transferred Late to Plan	Total that Constitute Nonexempt Prohibited Transactions			Total Fully Corrected Under VFCP and PTE 2002-51
Check here if Late Participant Loan Repayments are included: ☒	Contributions Not Corrected	Contributions Corrected Outside VFCP	Contributions Pending Correction in VFCP	
\$ 44,975	\$ -	\$ 44,975	\$ -	\$ -

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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, 2010

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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, 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**

**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 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

	<u>2009</u>	<u>2008</u>
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	<u>243,577</u>	<u>190,819</u>
Total investments	4,219,681	3,626,910
Contribution receivable	<u>13,223</u>	<u>32,046</u>
Net assets available for benefits at fair value	4,232,904	3,658,956
Adjustment from fair value to contract value for fully benefit responsive investment contract	<u>15,079</u>	<u>38,122</u>
Net assets available for benefits	<u>\$ 4,247,983</u>	<u>\$ 3,697,078</u>

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

AEROSONIC CORPORATION
401(k) PLAN

Statement of Changes in Net Assets Available for Benefits
For the Year Ended December 31, 2009

Additions to net assets attributed to:

Investment income:

Interest and dividends	\$ 42,700
Net appreciation in fair value of investments	<u>728,671</u>
Total investment income	771,371

Contributions:

Participant contributions	229,301
Total additions	<u>1,000,672</u>

Deductions from net assets attributed to:

Benefits paid to participants	(421,796)
Administrative expenses	<u>(27,971)</u>
Total deductions	<u>(449,767)</u>

Net increase	550,905
--------------	---------

Net assets available for plan benefits:

Beginning of year	<u>3,697,078</u>
End of year	<u><u>\$ 4,247,983</u></u>

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

**Aerosonic Corporation 401(k) Plan
Notes to Financial Statements
December 31, 2009 and 2008**

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 \$16,500 and \$15,500 for 2009 and 2008, respectively. For participants over the age of 50, an additional catch-up contribution of \$5,500 and \$5,000 is also allowed for 2009 and 2008, respectively. 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. In the past, the Company contributed an amount equal to 100% of a participant’s contributions up to 3% of eligible compensation. As a result of the Company’s January 31, 2009 suspension of employer contributions, the total matching contribution made to the Plan amounted to \$0 in cash for the year ended December 31, 2009. Effective June 11, 2010, the Company has resumed employer contributions to the Plan.

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 2009.

Forfeitures

The balance of amounts forfeited by nonvested accounts of inactive participants as of December 31, 2009 and December 31, 2008 was \$3,847 and \$3,807, respectively. Under Article V of the Plan Document, forfeitures may first be applied towards plan expenses and then to reduce future employer contributions, other than elective contributions.

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 chose 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.

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:

Years of Service	Vesting Percentage
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 59½ 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 70½ 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 was 4.25% per annum during the 2009 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 the Company's common stock is determined using the closing market price from the NYSE Amex at December 31, 2009.

Wachovia Diversified Stable Value Fund (the "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. The average yield earned by the Fund was 2.6% and 4.8% for the years ended December 31, 2009 and 2008, respectively. On a quarterly basis, the crediting interest rate was reset to determine the sensitivity of the Fund to the market yield. Accounting principles generally accepted in the United States of America require common collective trusts 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, 2009, the fund is recorded at fair value with an adjustment to contract value on the Statement of Net Assets Available for Benefit. The Company is not aware of any event that would limit the Plan's ability to execute transactions at contract value.

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 Appreciation in Fair Value of Investments

The Plan presents in the statement of changes in net assets available for benefits, the net appreciation 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, 2009.

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:

	2009	2008
American Funds Growth R3	\$958,367	\$832,173
Oakmark Equity & Inc. II	575,463	557,398
DWS Global Opportunities A	400,483	331,247
Wachovia Div Stable Value	701,334	762,448
Pimco Total Return / A	349,402	*
Aerosonic Corp Del Com Par \$0.40	279,121	*
Riversource Diversified Equity Inc. A	239,647	236,075
Van Kampen US Mortgage /A	259,993	250,588

* Did not represent 5% or more of net assets available for benefits

4. Net Appreciation 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), increased in value by \$728,671 during the year ended December 31, 2009, as follows:

Registered investment companies	\$ 568,253
Common Collective Trusts	15,112
Aerosonic Corporation common stock	145,306
	<u>\$ 728,671</u>

5. Fair Value Measurements

FASB ASC 820 *Fair Value Measurements and Disclosures* ("FASB ASC 820") establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under FASB ASC 820 for financial assets and financial liabilities are described below:

- 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.

Aerosonic Corporation 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

Investments in common collective trust funds are valued based on the year-end unit value; unit values are determined by the issuer or Third Party Administrator by dividing the fair values of the total net assets at year-end by the outstanding units. The fair values of the total net assets are determined by the nature of the underlying investments. Each underlying investment is valued at fair value in accordance with the valuation description associated with its investment type as stated above. Units in common collective trust funds, which hold benefit-responsive contracts, are priced based upon fair value of the underlying investments with an adjustment to contract value in the Statements of Net Assets Available for Benefits. These assets are classified within Level 2 of the valuation hierarchy. Adjustments to these assets, based upon 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.

Registered Investment Companies

Investments in shares of registered investment companies are valued at quoted market prices, which represent the net asset values of shares held by the Plan at year-end.. These assets are classified within Level 1 of the valuation hierarchy.

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:

	Estimated Fair Value Measurements at December 31, 2009			
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Aerosonic Corporation common stock	\$ 279,121	\$ 279,121		
Registered investment companies	3,008,138	3,008,138		
Common collective trusts	688,845		\$ 688,845	
Participant loans	243,577			\$ 243,577
Total Investments	\$4,219,681	\$ 3,287,259	\$ 688,845	\$ 243,577

Estimated Fair Value Measurements at December 31, 2008				
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (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	
Participant loans	190,819			\$ 190,819
Total Investments	\$3,626,910	\$ 2,593,716	\$ 842,375	\$ 190,819

The change in the fair value of the Plan's level 3 investments for the year ended December 31, 2009 is set forth in the table below:

	Participant Loans
Balance, beginning of year	\$ 190,819
Realized gains (losses)	-
Unrealized gains (losses) relating to assets still held at reporting date	-
Purchase, sales, issuances and settlements, net	52,758
Balance, end of year	<u><u>\$ 243,577</u></u>

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. The plan has been amended since receiving the determination letter. However, the plan administrator and the plan's tax counsel believe that the plan is currently designed and being operated in compliance with the applicable requirements of the Internal Revenue Code.

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.

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 2009 and 2008, the Plan sponsor inadvertently failed to deposit \$44,975 and \$25,804, respectively, 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.

11. Reconciliation of Financial Statements to Form 5500

The following is a reconciliation of net assets available for benefits per the financial statements as of December 31, 2009 and 2008 to Form 5500:

	<u>2009</u>	<u>2008</u>
Statements of net assets available for benefits:		
Net assets available for benefits per the financial statements	\$ 4,247,983	\$ 3,697,078
Contributions receivable	(13,223)	-
Net assets available for benefits per Form 5500	<u>\$ 4,234,760</u>	<u>\$ 3,697,078</u>

The following is a reconciliation of changes in net assets per the financial statements for the year ended December 31, 2009, to total net income per Form 5500:

Statement of changes in net assets available for benefits:	
Net increase in net assets available for benefits	\$ 550,905
Accrued revenue for contributions receivable	(13,223)
Total net income per Form 5500	<u>\$ 537,682</u>

Schedule I

AEROSONIC CORPORATION
401(k) PLAN

Schedule H, Line 4(i) - Schedule of Assets
(Held at End of Year December 31, 2009)
EIN #74-1668471
Plan #002

(a)	(b) Identity of issue, borrower, lessor or similar Party	(c) Description of investment including maturity date, rate of interest, collateral, par or maturity date	(d) Cost	(e) Current value
Common Collective Trusts				
*	Wachovia Bank N.A.	Enhanced Stk Mkt FD - AT (137.63 Units)	\$	** \$ 1,735
*	Wachovia Bank N.A.	Total Return Bond FD - AT (80.18 Units)	**	855
*	Wachovia Bank N.A.	Wachovia Div Stable Value (2,031.07 Units)	**	701,334
Registered Investment Companies				
		Van Kampen US Mortgage/A (19,957.62 Units)	**	259,993
		PIMCO Total Return/A (22,775.56 Units)	**	349,402
		Oakmark Equity & Inc. II (22,629.28 Units)	**	575,463
		Riversource Diversified Equity Inc. A (27,232.67 Units)	**	239,647
		American Funds Growth R3 (35,587.33 Units)	**	958,367
		Riversource Mid Cap Value A (9,067.62 Units)	**	58,486
		Thornburg Core Growth R3 (3,991.92 Units)	**	56,645
		DWS Global Opportunities A (12,934.19 Units)	**	400,483
		DWS Dreman Small Cap Value A (1,420.35 Units)	**	44,073
		Alger Fund - Small Cap Growth (88.94 Units)	**	898
		PIMCO Real Return/Institutional - AT (48.15 Units)	**	578
		Evergreen Intl Bond I - AT (56.49 Units)	**	856
		T. Rowe Price Equity Income - AT (267.24 Units)	**	3,432
		Evergreen Strategic Growth Income - AT (198.85 Units)	**	2,618
		Evergreen Intl Equity I - AT (322.21 Units)	**	5,089
		PIMCO Total Return/Inst (123.88 Units)	**	1,463
		Dreyfus Premier Small Cap Equity - AT (131.71 Units)	**	1,184
		Alger Funds Small Cap Gro Instl/I - AT (1,760.75 Units)	**	39,018
		T. Rowe Price Real Estate - AT (183.13 Units)	**	1,311
		Lazard Emerging Markets/I AT (79.74 Units)	**	1,209
		Goldman Sachs Large Cap Val/I - AT (536.41 Units)	**	4,024
		JP Morgan High Yield - AT (54.98 Units)	**	614
		T. Rowe Price Growth Stk - AT (411.48 Units)	**	3,285
Common Stock				
*	Aerosonic Corporation Common Stock	Equity Securities of Aerosonic Corporation, par value \$0.40	237,324	279,121
Participant Loans				
*	Participant Loans	Various maturities ranging from January 2010 to December 2014 (interest rates from 4.25% to 9.25%)	**	243,577
			\$ 237,324	\$ 4,234,760

* Party-in-interest

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

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Schedule II

AEROSONIC CORPORATION
401(k) PLAN

Schedule H, Line 4(a) – Schedule of Delinquent Participant Contributions
EIN #74-1668471
Plan #002

Participant Contributions Transferred Late to Plan	Total that Constitute Nonexempt Prohibited Transactions			Total Fully Corrected Under VFCP and PTE 2002-51
Check here if Late Participant Loan Repayments are included: ☒	Contributions Not Corrected	Contributions Corrected Outside VFCP	Contributions Pending Correction in VFCP	
\$ 44,975	\$ -	\$ 44,975	\$ -	\$ -

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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, 2010

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