

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

SCHEDULE 13G
(RULE 13D-102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT
TO RULES 13D-1(B), (C) AND (D) AND AMENDMENTS THERETO FILED
PURSUANT TO RULE 13D-2(B)

SunPower Corporation

(Name of Issuer)

Class A Common Stock, \$0.001 par value

(Title of Class of Securities)

867652109

(CUSIP Number)

January 10, 2007

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
 Rule 13d-1(c)
 Rule 13d-1(d)

1. NAMES OF REPORTING PERSONS

I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)

Thomas Linn Dinwoodie

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP(a) (b)

Not applicable.

3. SEC USE ONLY**4. CITIZENSHIP OR PLACE OF ORGANIZATION**

USA

5. SOLE VOTING POWER

Number of

2,315,979¹

Shares

6. SHARED VOTING POWER

Beneficially

Owned by

0

Each

7. SOLE DISPOSITIVE POWER

Reporting

2,315,979¹

Person

With:

8. SHARED DISPOSITIVE POWER

0

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON2,315,979¹**10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES** **11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9**10.6%²**12. TYPE OF REPORTING PERSON**

IN

¹ Represents 2,291,285 shares owned directly by Mr. Dinwoodie, 12,347 shares owned by the Jaelyn Wolf Irrevocable Trust UAD May 5, 2005, of which Mr. Dinwoodie is the Trustee, and 12,347 shares owned by the Ariel Wolf Irrevocable Trust UAD May 5, 2005, of which Mr. Dinwoodie is the Trustee.² SunPower has two classes of common stock outstanding: class A, with one vote per share and class B, with eight votes per share. All 52,033,287 outstanding shares of class B common stock are owned by Cypress Semiconductor Corporation. The 2,315,979 shares of which Mr. Dinwoodie has beneficial ownership represent 0.5% of the total voting power of SunPower's outstanding common stock.

Item 1 (a). Name of Issuer:

SunPower Corporation

Item 1 (b). Address of Issuer's Principal Executive Offices:

3939 North First Street, San Jose, CA 95134

Item 2 (a). Name of Person Filing:

Thomas Linn Dinwoodie

Item 2 (b). Address of Principal Business Office, or, if None, Residence:

3939 North First Street, San Jose, CA 95134

Item 2 (c). Citizenship:

USA

Item 2 (d). Title of Class of Securities:

Class A Common Stock, \$0.001 par value

Item 2 (e). CUSIP Number:

867652109

Item 3. If this statement is filed pursuant to Rule 13d-1(b), or 13d-2(b) or (c), check whether the person filing is a:

- (a) Broker or dealer registered under Section 15 of the Exchange Act;
- (b) Bank as defined in Section 3(a)(6) of the Exchange Act;
- (c) Insurance company as defined in Section 3(a)(19) of the Exchange Act;
- (d) Investment company registered under Section 8 of the Investment Company Act;
- (e) An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E);
- (f) An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F);
- (g) A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G);
- (h) A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act;
- (i) A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act;
- (j) Group, in accordance with Rule 13d-1(b)(1)(ii)(J).

Item 4. Ownership.

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

(a) Amount beneficially owned:

2,315,979¹

(b) Percent of class:

10.6%²

(c) Number of shares as to which the person has:

(i) Sole power to vote or direct the vote

2,315,979¹

(ii) Shared power to vote or direct the vote

0

(iii) Sole power to dispose or to direct the disposition of

2,315,979¹

(iv) Shared power to dispose or to direct the disposition of

0

Item 5. Ownership of Five Percent or Less of a Class.

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following .

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

The beneficiary of the Jaelyn Wolf Irrevocable Trust UAD May 5, 2005 has the right to receive dividends from, and the proceeds from the sale of, 12,347 shares. The beneficiary of the Ariel Wolf Irrevocable Trust UAD May 5, 2005 has the right to receive dividends from, and the proceeds from the sale of, 12,347 shares.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person.

Not applicable.

Item 8. Identification and Classification of Members of the Group.

Not applicable

Item 9. Notice of Dissolution of Group.

Not applicable

Item 10. Certifications.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

¹ Represents 2,291,285 shares owned directly by Mr. Dinwoodie, 12,347 shares owned by the Jaelyn Wolf Irrevocable Trust UAD May 5, 2005, of which Mr. Dinwoodie is the Trustee, and 12,347 shares owned by the Ariel Wolf Irrevocable Trust UAD May 5, 2005, of which Mr. Dinwoodie is the Trustee.

² SunPower has two classes of common stock outstanding: class A, with one vote per share and class B, with eight votes per share. All 52,033,287 outstanding shares of class B common stock are owned by Cypress Semiconductor Corporation. The 2,315,979 shares of which Mr. Dinwoodie has beneficial ownership represent 0.5% of the total voting power of SunPower's outstanding common stock.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

/s/ Thomas Linn Dinwoodie

Thomas Linn Dinwoodie

Dated: January 22, 2007