UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

PURSUANT TO SECTION 13 OR 15(d) OF THE

SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported): October 24, 2006

MICROSEMI CORPORATION

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of

000-08866 (Commission File No.) 95-2110371 (IRS Employer

incorporation)

2381 Morse Avenue, Irvine, California 92614

Identification No.)

(Address of principal executive offices) (Zip Code)

Registrant s telephone number, including area code: (949) 221-7100

N/A

(Former name or former address if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2 below):

- " Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- " Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- " Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- " Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 1.01 Entry into a Material Definitive Agreement.

Merger Agreement

On October 24, 2006, Microsemi Corporation (Microsemi) issued a press release announcing that Microsemi, PowerDsine Ltd. (PowerDsine) and Pinnacle Acquisition Ltd, a wholly owned subsidiary of Microsemi (Merger Sub), had entered into an Agreement and Plan of Merger, dated as of October 24, 2006 (the Merger Agreement), pursuant to which Merger Sub would merge (the Merger) with and into PowerDsine, with PowerDsine surviving as a wholly-owned subsidiary of Microsemi.

Subject to the terms and conditions of the Merger Agreement, which has been approved by the boards of directors of both companies, upon the completion of the Merger, each PowerDsine shareholder will receive \$8.25 per share in cash and 0.1498 shares of Microsemi common stock for each share of PowerDsine common stock. Based on closing stock prices on October 23, the total consideration values PowerDsine at \$11.00 per share for a total consideration of \$245 million on a fully-diluted basis. PowerDsine stock options will generally convert upon completion of the Merger into the right, subject to the prior vesting schedule and exercise price of such options, to receive cash and shares of Microsemi common stock in respective amounts as would have been exchanged at the time of the Merger for the number of shares of PowerDsine common stock into which such options were exercisable, subject to certain adjustment in the event that the exercise price of any option exceeds the cash amount into which that option may be exercised.

The Merger Agreement contains customary representations, warranties and covenants of Microsemi and PowerDsine, including, among others, a covenant by PowerDsine to conduct its business in the ordinary course during the interim period between the execution of the Merger Agreement and consummation of the Merger and not to engage in certain kinds of transactions during such period. The board of directors of PowerDsine has adopted a resolution recommending the requisite approval of the Merger by its shareholders, and has agreed to hold a shareholder and any necessary creditor meetings to consider and vote upon the transactions contemplated by the Merger Agreement. PowerDsine has also agreed not to (i) solicit proposals relating to alternative business combination transactions or (ii) subject to certain exceptions, enter into discussions or an agreement concerning or provide confidential information in connection with any proposals for alternative business combination transactions.

Consummation of the Merger is subject to conditions, including, among others, (i) approval of the Merger by an Israeli court (which approval can only occur after the shareholders and creditors of PowerDsine approve the Merger in accordance with Section 350 of the Israeli Companies Law), (ii) receipt of certain regulatory approvals, (iii) the absence of any law or order prohibiting the closing, (iv) subject to an overall material adverse effect qualification on most representations and warranties, the accuracy of the representations and warranties of the other party at the time of execution of the Merger Agreement and the time of the Merger, and (iv) compliance in all material respects by the other party with its covenants.

The Merger Agreement contains certain termination rights for both Microsemi and PowerDsine and further provides that, upon termination of the Merger Agreement under specified circumstances, PowerDsine may be required to pay Microsemi a termination fee of \$8,600,000.

The assertions embodied in the representations and warranties of the Merger Agreement were made for purposes of the Merger Agreement and are subject to qualifications and limitations agreed to by the respective parties in connection with negotiating the terms of the Merger Agreement. In addition, certain representations and warranties were made as of a specific date, may be subject to a contractual standard of materiality different from what might be viewed as material to stockholders, or may have

been used for purposes of allocating risk between the respective parties rather than establishing matters of fact. Investors should read the Merger Agreement together with the other information concerning Microsemi and PowerDsine that each company publicly files in reports and statements with the Securities and Exchange Commission.

A copy of the press release is attached hereto as Exhibit 99.1 and is hereby incorporated into this report by reference.

Voting Undertakings

Concurrently with entering into the Merger Agreement, certain directors, executive officers and shareholders of PowerDsine entered into Voting Agreements with Microsemi (the Voting Agreements) pursuant to which they agreed to vote their shares of PowerDsine (i) for the adoption and approval of the Merger Agreement and the transactions contemplated thereby, including the Merger, (ii) against any action or agreement that would compete with, or materially impede, or interfere with or that would reasonably be expected to discourage the transactions contemplated by the Merger Agreement; or inhibit the timely consummation of those transactions, and (iii) except for the Merger, against any alternative business combination transaction, or merger, consolidation, business combination, reorganization, recapitalization, liquidation or sale or transfer of any material assets of PowerDsine or its subsidiaries not permitted pursuant to the Merger Agreement.

Affiliate Agreements

Concurrently with execution of the Merger Agreement, certain affiliates of PowerDsine entered into Affiliate Agreements (the Affiliate Agreements) pursuant to which such affiliates agreed not to make any sale, transfer or other disposition of Microsemi securities that they receive as a result of the Merger in violation of the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

Item 7.01 Regulation FD Disclosure

The presentation materials attached hereto as Exhibit 99.2 are filed pursuant to Item 7.01.

FORWARD-LOOKING STATEMENTS

Any statements set forth in this report that are not entirely historical and factual in nature are forward-looking statements. For instance, all statements of belief and all statements about plans or expectations are forward-looking statements. Forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. Potential risks and uncertainties regarding the acquisition of PowerDsine include, but are not limited to, the inability to close the acquisition transaction referred to in this press release for failure to obtain Israeli court approval, regulatory approval, shareholder approval, or any other reason, uncertainty as to the future profitability, if any, from the acquisition transaction referred to in this press release, and adverse impacts on the PoE markets or the speed of growth of the PoE market. The potential risks and uncertainties also include, but are not limited to, such factors as changes in generally accepted accounting principles, the difficulties regarding the making of estimates and projections, the hiring and retention of qualified personnel in a competitive labor market, acquiring, managing and integrating new operations, businesses or assets, closing or disposing of operations or assets, or possible difficulties in transferring work from one plant to another, rapidly changing technology and product obsolescence, difficulties predicting the timing and amount of plant closure costs, the potential inability to realize cost savings or productivity gains and to improve capacity utilization, potential cost increases, weakness or competitive pricing environment of the marketplace,

uncertain demand for and acceptance of the company s products, adverse impacts on analog / mixed-signal markets, results of in-process or planned development or marketing and promotional campaigns, changes in demand for products, difficulties foreseeing future demand, effects of limited visibility of future sales, potential non-realization of expected orders or non-realization of backlog, product returns, product liability, and other potential unexpected business and economic conditions or adverse changes in current or expected industry conditions, business disruptions, epidemics, disasters, wars or potential future effects of the tragic events of September 11, 2001, variations in customer order preferences, fluctuations in market prices of the company s common stock and potential unavailability of additional capital on favorable terms, difficulties in implementing company strategies, dealing with environmental or other regulatory matters or litigation, or any matters involving litigation, contingent liabilities or other claims, difficulties and costs imposed by law, including under the Sarbanes-Oxley Act of 2002, difficulties in determining the scope of, and procuring and maintaining, adequate insurance coverage, difficulties, and costs, of protecting patents and other proprietary rights, work stoppages, labor issues, inventory obsolescence and, difficulties regarding customer qualification of products, manufacturing facilities and processes, and other difficulties managing consolidation or growth, including in the maintenance of internal controls, the implementation of information systems, and the training of personnel. In addition to these factors and any other factors mentioned elsewhere in this news release, the reader should refer as well to the factors, uncertainties or risks identified in the company s most recent Form 10-K and subsequent Form 10-Q reports filed by Microsemi with the SEC. Additional risk factors shall be identified from time to time in

Item 9.01 Financial Statements and Exhibits

(d) Exhibits.

Exhibit No. Description
99.1 Press Release issued October 24, 2006, issued by Microsemi Corporation.
99.2 Presentation Materials issues October 24, 2006, issued by Microsemi Corporation

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Microsemi Corporation

Date: October 24, 2006 By: /s/ David R. Sonksen

David R. Sonksen

Chief Financial Officer, Executive Vice President,

Treasurer and Secretary

5

Exhibit Index

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