UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K/A

Amendment No. 1

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

0-8866 (Commission File Number) 95-2110371 (IRS Employer

of incorporation)

Identification No.)

2381 Morse Avenue, Irvine, California (Address of principal executive offices)

92614 (Zip Code)

Registrant s telephone number, including area code

(949) 221-7100

(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:

- " 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))

This report amends the Current Report on Form 8-K filed by Microsemi Corporation on October 24, 2006 by providing a transcript of the conference call held on October 24, 2006. The conference call, which concerns the transaction contemplated between Microsemi Corporation and PowerDsine, was announced in Microsemi Corporation s news release dated October 24, 2006, which was filed as Exhibit 99.1 to that report. A recording of the conference call also was first made available on October 24, 2006 as described in the news release.

INFORMATION TO BE INCLUDED IN THE REPORT

Section 7 Regulation FD

Item 7.01 Regulation FD Disclosure.

The conference call transcript attached hereto as Exhibit 99.3 is incorporated herein by reference and is furnished 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 report 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 Microsemi 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 Microsemi 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, the reader should refer as well to the factors, uncertainties or risks identified in Microsemi 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 Microsemi s future filings. Microsemi does not undertake to supplement or correct any information in this report that is or becomes incorrect.

Section 9 - Financial Statements and Exhibits

Item 9.01 Financial Statements and Exhibits.

Exhibit No. Description

99.3 Transcript of conference call of October 24, 2006.

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

(Registrant)

Date: October 26, 2006

/s/ DAVID R. SONKSEN David R. Sonksen

Executive Vice President,

Chief Financial Officer, Treasurer

and Secretary

EXHIBIT INDEX

Exhibit No.

DescriptionTranscript of Conference Call of October 24, 2006. 99.3