PETERSON JAMES J

Check this box

if no longer

subject to

Section 16.

Form 4

December 07, 2006

FORM 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION

OMB APPROVAL

OMB Number: 3235-0287

Expires: January 31, 2005

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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Form 4 or Form 5 obligations may continue. See Instruction

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

Washington, D.C. 20549

1(b).

(Print or Type Responses)

| 1. Name and Address of Reporting Person * PETERSON JAMES J | | | 2. Issuer Name and Ticker or Trading Symbol MICROSEMI CORP [MSCC] | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) | | | |
|--|---------|----------|---|--|--|--|--|
| (Last) | (First) | (Middle) | 3. Date of Earliest Transaction | (Check an applicable) | | | |
| | | | (Month/Day/Year) | X Director 10% Owner | | | |
| 2381 MORSE AVENUE | | | 12/05/2006 | _X_ Officer (give title Other (specify below) President, CEO & Director | | | |
| (Street) | | | 4. If Amendment, Date Original | 6. Individual or Joint/Group Filing(Check | | | |
| IRVINE, CA 92614 | | | Filed(Month/Day/Year) | Applicable Line) _X_ Form filed by One Reporting Person Form filed by More than One Reporting Person | | | |

| (City) | (State) (Z | Table Table | I - Non-De | rivative So | ired, Disposed of, or Beneficially Owned | | | | |
|--------------------------------------|---|---|--------------------|---------------|--|--|--|---|--|
| 1.Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | Code (Instr. 8) | (A) or | | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | |
| Microsemi Common Stock (1) | 12/05/2006 | | Code V | Amount 45,000 | (D) | Price \$ 21.37 | 63,768 | D | |
| Microsemi Common Stock (1) | 12/05/2006 | | M | 5,900 | A | \$ 8.62 | 69,668 | D | |
| Microsemi Common Stock (1) | 12/05/2006 | | M | 37,500 | A | \$ 7.055 | 107,168 | D | |
| Microsemi Common | 12/05/2006 | | M | 42,500 | A | \$ 11.36 | 149,668 | D | |

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| Stock (1) | |
|-----------|--|
|-----------|--|

| Microsemi Common Stock (1) | 12/05/2006 | M | 12,100 | A | \$ 13.72 | 161,768 | D |
|----------------------------------|------------|---|--------|---|-------------|---------|---|
| Microsemi Common Stock | 12/05/2006 | G | 39,500 | D | \$ 21.37 | 122,268 | D |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

SEC 1474

(9-02)

 $\label{thm:convergence} \begin{tabular}{ll} Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned \\ (e.g., puts, calls, warrants, options, convertible securities) \end{tabular}$

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | | | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) | | |
|---|---|--------------------------------------|---|--------|-----|--|---------------------|---|-----------------|-------------------------------------|
| | | | | Code V | (A) | (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares |
| ISO Option to buy Commo Stock (1) | \$ 8.62 | 12/05/2006 | | M | | 5,900 | 03/15/2003 | 03/15/2012 | Common Stock | 5,900 |
| ISO Option to Buy Common Stock (1) | \$ 7.055 | 12/05/2006 | | M | | 37,500 | 06/17/2004 | 06/17/2013 | Common Stock | 37,500 |
| ISO Option to Buy Common Stock (1) | \$ 11.36 | 12/05/2006 | | M | | 42,500 | 08/18/2005 | 08/18/2014 | Common Stock | 42,500 |
| ISO Option to Buy Common Stock (1) | \$ 13.72 | 12/05/2006 | | M | | 12,100 | 09/26/2005 | 09/26/2014 | Common Stock | 12,100 |

Reporting Owners

Reporting Owner Name / Address Relationships

Director 10% Owner Officer Other

PETERSON JAMES J

2381 MORSE AVENUE X President, CEO & Director

IRVINE, CA 92614

Signatures

Debbie Weber, Attorney-in-Fact for James J.
Peterson 12/07/2006

**Signature of Reporting Person Date

Explanation of Responses:

- * If the form is filed by more than one reporting person, see Instruction 4(b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) This incentive stock option was granted pursuant to Microsemi Corporation's 1987 Stock Plan, which satisfies the requirements of Rule 16b-3. The option becomes exercisable in three equal installments, commencing one year after the date of the grant.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.

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